

Youngstown Historical Center of Industry and Labor Celebrates 30th Anniversary

BROOKE BOBOVYNIK

Among polka, pierogi, and brier hill pizza, the steel industry stands as a central hallmark of Youngstown heritage and history.

The Youngstown Historical Center of Industry and Labor opened in 1992 to memorialize the city's industrial identity and is set to celebrate its 30th anniversary this year.

"The historical development of the Mahoning Valley not only parallels the historical development of the American iron and steel industry, it is one of its most vital segments. Despite the historical and contemporary importance of the iron and steel industry, few Americans know much about it...few of us are knowledgeable about the size, operations, or historical origins of this vital part of our nation," reads the center's original proposal.

The center was originally proposed by the Ohio History Connection, formerly the Ohio Historical Society, and was eventually built by 4.3 million dollars in funds collected with the help of Senator Harry Meshel and the Ohio General Assembly.

While originally intended to be constructed at the Jeanette Blast Furnace of Brier Hill works, the center found its home on the outskirts of downtown and the Youngstown State University campus.

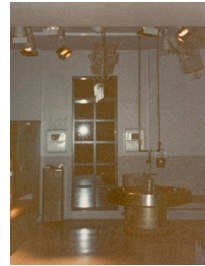
Michael Graves, a world-renowned architect, designed the center in postmodern style and infused the city's industrial makeup into its architecture, with a dome crafted to mimic the interior of a blast furnace and two smokestack-eqsue sculptures in the back of the building. The museum has been a Youngstown landmark and an educational staple explored by residents, visitors, and students.

"Today, the Youngstown Historical Center of Industry and Labor is one of few museums in the United States to be affiliated with a university. The museum serves as a learning lab for YSU students. It sponsors two assistantships and provides volunteer opportunities in the museum, storage area, and archives library," states Dr. Marcelle Wilson, the museum's site manager. After attending secondary school field trips to the center growing up like many students in the Mahoning Valley, Brooke Bobovnyik, a History MA student, now serves as its Graduate Assistant.

"I've had a fascination with history for as long as I can remember. Halfway through my undergraduate career at YSU, I decided to switch my major from Integrated Social studies to History. I realized my



1988 Construction of Musuem



1991 photo of Center's 'Locker Room,' part of a permanent exhibit



Brooke Bobovnyik



1981 photo of Brier Hill Works' Jeanette Blast Furnace

passion in life was to work in a museum," Bobovnyik states.

Getting to work at the center, Brooke has been afforded the opportunity to engage with her passion and hone her skillset in the museum sector. For her assistantship, Bobovnyik is responsible for operating the center's online and social media content, such as videos, virtual Youngstown walking tours, and online exhibits.

The museum presently contains two temporary exhibits, including an exhibit on the William B. Pollock Company, a local company formed in 1863 to supply equipment for the steel industry, and an exhibit on the Youngstown General Duty Nurse Association, a Youngstown-based union that was second in the nation and first in the state to unite nurses,

which Bobovnyik helped develop. Currently, Bobovnyik is assisting in creating an exhibit for The Youngstown Historical Center of Industry and Labor's 30th anniversary.

"The exhibit that I'm developing will be compromised of three sections that focus on why the museum was created, how it was established, and its significance in the community today," Bobovnyik explains.

This exhibit will be accompanied by a 30th anniversary event and speakers, as well as an additional lecture series spread-out throughout the year to honor the museum's legacy. For Bobovnyik, this experience has been both educational and enriching.

"Working at the Youngstown Historical Center of Industry and Labor, I became equipped with some of the skills necessary to work in a museum. As part of my graduate assistantship, I learned how to lead tours, and how to create and organize exhibits. Most of my work at the museum involved creating online content and developing the museum's website. My experience at the museum has made me realize that I am doing what I was always meant to do," she states.

The 30th Anniversary Lecture Series will begin Thursday, June 23rd at 6 p.m. at the museum and will be live streamed on the museum's YouTube channel. ■

Preserving Youngstown's Jewish History: Placing Congregation Rodef Sholom on the National Register

DONNA DEBLASIO

In the early 1900s, The Wick Park District blossomed alongside the city's growing industry and immigrant population. With Stambaugh Auditorium's Pantheon design and the surrounding mansions' Georgian Revival style encircling the park, the district became the home of magnificent architecture and a reflection of the city's culture. Congregation Rodef Sholom, Youngstown's first Jewish congregation, was constructed in 1914 and continues to be central in the district's historical and cultural landscape.

"The founding congregation was made up largely of German Jewish families and dates back to 1867, building its first temple in 1886 at Lincoln and 5th Avenue. This building was built in 1914 to accommodate the growing congregation," Dr. Donna DeBlasio states.

DeBlasio, an alumnus of and Professor Emeritus in Youngstown State University's History Department, is currently working on placing Congregation Rodef Sholom on the National Register of Historic Places. The Wick Park Historic District, demarcated across 5th Avenue and Elm Street, was listed on the National Register in 1990, with Congregation Rodef Sholom serving as a contributing property. However, DeBlasio believes the landmark deserves its own individual listing on the national register. Having published books, such as Postcards from the Steel City and Images of America: Youngstown, and successfully written National Register nominations in the past, DeBlasio is eager to continue applying her passion for the preservation of Youngstown history and culture in the National Register of Historic Places Nomination process. For the National Register of Historic Places, the property can be of local, state, regional, or national significance. The property needs to meet at least one of the four criteria: have an association with events in history, an association with a significant person, historically significant architecture, or archeological significance. Congregation Rodef Sholom's nomination will focus on the temple's historical and architectural significance, with thematic associations of the religion, culture, and immigration. The temple's architecture blends features of Moorish Revival Style with American architecture.



Donna DeBlasio



Temple Front Doors



Temple's brick and stone walls



Front-facing side of Temple

continued on next page

“It is a really good example of Moorish Revival architecture. There are other synagogues like this listed on the register, and I’m trying to make the case that it is an example of this particular kind of architecture. Morris Scheibel, notable Youngstown architect, designed the temple with elements of Moorish Revival Style, including a segmental-arched five-part-stained glass window covering the front entry, a cornice with stone coping and brick corbelling and dentils, six stained glass windows on each side, and decorative brick belt coursing over stone base,” DeBlasio explains.

DeBlasio is working with Hannah Klacik, a History MA student, for the temple’s nomination. With the guidance of DeBlasio, Klacik is working on a thesis regarding Congregation Rodef Sholom and did an independent study, where they started the National Registry Nomination. Klacik will be focusing on the descriptions of the property’s architecture, while DeBlasio will focus on its historical significance.

“We think that the nomination will serve to call attention to the significance of preserving Jewish culture and history in the present day,” DeBlasio concludes. ■

Gearing Up for New Horizons: Educational and Technological Innovation at The Excellence Training Center

JACKIE RULLER

Identifying the need for an alternative route to career growth and the opportunity for development in the region's industrial future, The Excellence Training Center was created to serve students and the local community through its focus in workforce, education, research, and commercial projects. The Excellence Training Center, located in Kohli Hall on the Youngstown State University campus, functions as a hands-on classroom for YSU students, as well as a training center for the larger community.

"We have YSU students that come here for robotics and design classes, and we show them what we have in the center to hopefully entice them to come back and work with us in other ways," Jackie Ruller states.

Ruller, who serves as Director of Advanced Manufacturing, Research, and Commercial Projects, as well as the center's site director, came to the center to assist in people's acquisition of workforce skills and training, something she notes is in high demand with the trend of people not needing or wanting a four-year degree.

"One of the goals of this division was created to provide as many training programs as possible for folks in the region so that they can attain better jobs and earn a living wage," Jackie Ruller states.

To assist this population, the center offers the opportunity to earn certifications and industry certified credentials in additive manufacturing, automation machining, industrial maintenance, and robotics. Jennifer Oddo, the Executive Director of the Workforce Education and Innovation Division at YSU and Lindsey Ekstand, the Director of Workforce Education Programs, are currently working on a way to transfer these credentials into credit towards a degree, promoting further education achievements for those that go through the center's training programs. In addition to these programs, The Excellence Training Center also functions as a research entity, having recently received \$2.3 million dollars from the Air Force Research Laboratory for a hybrid manufacturing research project in collaboration with Oak Ridge National Laboratory, Georgia Tech, University of Texas at El Paso, and the National Center for Defense Manufacturing and Machining. The center used this funding to purchase one of the three hybrid laser hot-wired cladding Direct Energy Deposition Mazak systems currently operational in the nation.

"Basically, the project is to figure out how to use this very unique equipment where you repair metals parts instead of having to replace them," Ruller explains. Bharat Yelamanchi and Andrew Prokop, two Materials Science and Engineering PhD students, are assisting in the research process. After undergoing training on how to use the machine, Yelamanchi and Prokop are aiding in drawing compliance checks, production and troubleshooting support, sample preparation, mechanical property characterization, and microscopy.

"The technology employed in this research is DED (Direct Energy Deposition), which is in high demand currently in production environment. Working on it enhanced my knowledge and understanding of the technology, hands on experience and how it can be customized to the complex design requirements catered by

the additive manufacturing industry," Yelamanchi explains.

With the implementation of this project and the accessibility of training opportunities, The Excellence Training Center's educational and technological innovation has established itself as a pillar of the university and Youngstown Community in under a year. ■



Jackie Ruller

Alicia Prieto: Making Applied Mathematics Accessible

ALICIA PRIETRO

When it comes to math, most can typically fit into one of two categories: those that have a penchant for formulaic-centric problem solving and those that have a pulsing headache. No matter which side of the scale you sit on, when it comes to applied mathematics, anyone that cares about anything can learn to appreciate the study and science of mathematics, and Dr. Alicia Prieto can show you how.

“People like me find problems in the world and figure out how to use math to understand and solve them,” Dr. Prieto, a Professor of Mathematics at Youngstown State University, states.

While pure mathematicians typically focus on the theoretical side of mathematics, applied mathematicians, such as Prieto, work on practical, real-world applications of mathematical methods. The world of applied mathematics opens those that excel and enjoy the subject up to a multitude of avenues and fields to explore, such as business, sociology, and medicine. Using mathematical models that mimic and explain a real-life phenomenon, applied mathematicians can answer questions across a variety of subject matter.

“Something that is really timely now is models for COVID-19 that use epidemiological equations. For example, you can have an equation that tells you how the number of infected people is growing, which is tied to a lot of factors that can be investigated through equations. We can figure out all of the parameters and make predictions about where the pandemic is going. Just like the pandemic, you can do almost everything in the world with this. Where there’s change, there’s math that you can model that change with,” Prieto explains.

While applied mathematics can address problems in a variety of

Schmidt, to understand the relationship between areas of the brain, different variables, and sleep.

“The main goal is to help understand the relationship between sleep and thermoregulation and see how that can be leveraged to assist in aiding people with sleep disorders,” Prieto states.

To do so, Prieto will use a system of equations to build a differential equation model for the different areas of the brain that mimic the brain’s connectivity and communicate with each other to investigate what parts of the brain are active and why. From here, she can use the model to translate how the equations are changing into what areas of the brain are active under which circumstances, allowing her to observe how the brain would function in response to a variety of stimuli and contexts.

“The model is made up of a bunch of equations that tell you how things are changing. The things that are changing are what part of the brain is active and what part of the brain is not active. The amount of activity that each part of the brain has is measured by your equations,” Prieto explains

In addition to her collaborations with medical professionals, Prieto works with women across the globe and the Latinx community, as well as her own graduate students. Her work with and for students has been acknowledged both by the national and local community, having received the Henry L. Alder Award from The Mathematical Association of America for her excellence in teaching in 2019 and having been recognized as a Women Warrior by The Community Foundation of the Mahoning Valley in 2020 for her assistance in providing international students with essential resources during the COVID-19 shutdown. Most of all, Prieto highly prioritizes and regards her mentorship of students, stating,

“Mentoring is my favorite part of my job. I like talking to students about what they can do with math, talking to them about opportunities, and taking them to conferences. To me, it’s really cool to show them the entire world of mathematics. I had a lot of mentors growing up, and I have a lot of mentors still. I think mentoring is incredibly important.”

Currently, Dr. Prieto is mentoring her graduate student, Anna Truman, in the creation of her own model geared at education interventions, passing on Prieto’s passion for mathematics and student success. ■



Alicia Prieto

fields, Prieto primarily works with finding problems in the medical field and building mathematical models around them to interpret the data, make predictions, and solve problems.

Currently, she is working on a sleep study with the President and Director of Research at the Ohio Sleep Medicine Institute, Dr. Markus

Calculating Success: Using Agent-Based Modeling to Achieve Higher Education Attainment

ANNA TRUMAN

Anna Truman is making her own contribution to remedy setbacks for students and encourage educational attainment. Truman, a Mathematics MA student at Youngstown State University, is building an agent-based model that offers insight into what kinds of interventions are effective for different student demographics.

“The whole purpose of this project is to find those kinds of interventions that public schools could employ in order to let students have a more equal opportunity of higher education attainment,” Truman states.

To build her model, Truman created a survey to collect data from Ohioans that asked a variety of questions regarding demographics, education history, and potential interventions that they may or may not have encountered. Taking into account the data from her surveys, as well as additional data collected from the U.S. Census Bureau that provides a broader demographic view of the student population, Truman formed an agent-based model.

“With an agent-based model, what you can do is create a matrix of different types of people that are randomly generated and run them through this mode,” Truman explains. Unlike many agent-based models where the various agents interact with each other, in Truman’s model, the agents (the students) interact with their environment and exposures to various interventions.

From here, she can look at what interventions yielded successful educational attainment with specific demographics.

“For example, it can take a certain population that didn’t have an inspirational mentor and see what their educational outcome is. Then, it can run a population with the same demographics that did have an inspirational mentor to see, on average, if they have a higher educational attainment,” Truman elaborates.

Should there be a higher rate of success for certain interventions in her analysis, Truman can predict what interventions can be beneficial for a subset of the student population.

Looking towards the future, Truman sees the possibility of collecting more data to continue her research and create an even more statistically solidified model. With this, she could share her research with schools to adjust or add onto existing interventions they have in place to actualize change in student success.

“The possibility of change is what is really significant in this research,” Truman states.

With the COVID-19 pandemic’s impact on online-based learning and the growing need for student support, Truman’s work achieves the hallmarks of meaningful research—timely, applicable, and essential. ■



Anna Truman

Leading with an Emphasis on Education

DR. LARWIN

Looking over Dr. Larwin's impressive academic background combined with her professional and personal success, it's evident that they stem from one prominent source: education.

Dr. Larwin possesses a bachelor's degree in psychology and math and a master's degree and doctorate in evaluation and measurement, all of which establish her as an asset to Youngstown State University.

Here, she has guided the graduation of over 70 doctoral students, served as the Chair of the Institutional Review Board, and worked as an Associate Professor, instructing a wide variety of coursework in research, educational foundations, leadership, and technology.

Adding to her own academic oeuvre, Larwin recently obtained her Master's in Public Health.

"The reason I decided to go back and get a Master's in Public Health was because I was seeing so much overlap between what is happening in public health and what is happening in the education arena, and I believe that all the evidence points to the fact that we need to fix the public health piece before we can make endways in the education piece, especially for early learners," Larwin states.

The intersection of this area of study and Larwin's previous experience in education and statistical modeling has shown itself to be useful in her current research endeavors.

Previously, Larwin pioneered the process of developing systematic item reduction structural equation modeling, a method of reducing the size needed for a research survey that was not developed prior to her dissertation research.

Larwin merged her own research with peer, Will Shadish's, work with hierarchal linear modeling methods.

"Usually, with some of these statistics, you need thousands of people, and he proposed that you can use a smaller sample size," Larwin explains.

With this, she reflected on the complications of previous research dealing with children with rare medical conditions that have extremely small sample sizes, and applied Shadish's ideas to improve the methods and outcomes of such studies.

Larwin was invited to present her work for the Federal Government with The Agency of Health and Human Services.

"I did this federal presentation showing them how their grant recipients could use this to report their data. Following that, I was invited to participate in a rare pediatric disease panel for the FDA, so that they could identify the best method to analyze data when you have rare pediatric diseases and are trying different interventions," Larwin elaborates.

While Larwin is collaborating with like-minded people on a global scale, she is also sharing her work at Youngstown State University with The Rich Center for Autism.

Currently, she is working with a group of graduate students to conduct research right on Youngstown State University's campus to better understand what kind of interventions work best with students on the autism spectrum.

For Larwin, working side-by-side graduate students has prompted the most pride in her career. Serving as their dissertation chair, she leads them through the entire process, including their research and data analysis.

"It's the most rewarding work. Every study is different. It is so exciting to see a student get through that proposal process and see them get excited about their research. It's a really fulfilling process. You get to see them reach that high-level goal in their life. I couldn't be prouder of every one of them," Larwin states.

Her graduate students have returned this sentiment, with a former student nominating her for The Regional Chamber's Athena Award for women who excel in their field.

In addition to this honor, Dr. Larwin's academic achievements have further been acknowledged and utilized throughout the community, where she serves as a valuable resource for creating reports for local school districts and state offices and has recently been invited to share her background in literacy issues on the advisory board for the Valley Stem Academy at Mahoning County Career and Technical Center.

Dr. Larwin's experience and work in education, statistical analysis, and human health has proved her to be not just an asset to the university, but also to her entire local community. ■



Dr. Larwin and Graduate Students, May 2019

Robots, Research, and Positive Reinforcement: Investigating Behavioral Interventions at The Rich Center

MARISSA DONCHESS

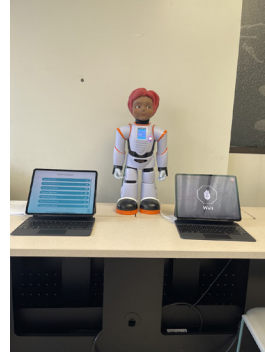
From education innovations at Turning Technologies to additive manufacturing at America Makes, Youngstown has formed itself into a hotspot of technological development. Along with the local community, Youngstown State University has participated in the city's evolution by implementing various education-focused research projects taking place on the school's campus.

The Paul and Anthony Rich Center at Youngstown State University, which functions as a resource and educational center, has continued to build on its additional function as a center for research to improve the education of students with autism. In recent years, the use of technology has seen traction in this area of the research and education community, through the invention and implementation of robots designed for specialized education.

A group of faculty and graduate students are following and utilizing this technological transition to explore opportunities to enhance the educational experience and outcomes for students with autism. The center recently purchased a set of robots from Robokind, an education technology company geared towards students with autism, to conduct a study focusing on behavioral interventions.

"Right now, there aren't many specific areas of interventions that are known to work. With the research we are conducting and data we are collecting, we are trying to find specific areas of interventions that are effective," explains Marissa Donchess, a Graduate Assistant at The Rich Center.

Under the advisement of Dr. Larwin, Donchess is currently working with Jacob Ballas, a fellow graduate student, in the data-collection stage of this study. Instead of working in a larger classroom setting, students are working one-on-one with two graduate students and two three-foot tall friendly robots, Milo and Jemi, who are designed



Robokind robot, Jemi

with a cartoony, welcoming human appearance.

"The robots are designed to work primarily with students with autism. Since students often have sensory challenges, they want to use these robots that can execute visual and verbal interventions," Donchess states.

While Donchess and Ballas collect data, they allow the robot to lead the activity and implement various interventions through the

different programmed modules by controlling and operating the robots with an iPad. One module featured uses a "follow the leader" activity to help students adapt to raising their hand in class. For this, the robot, Milo, raises their hand and then directs the student to mimic their action.

In addition to these types of activities, the robots also help students develop emotional and social skills, such as a greeting video activity on the connected iPad that portrays a student entering class, greeting the teacher, and sitting down and an activity where the robots visually act-out an emotion, such as happy, sad, and angry, and prompt the student to identify and mirror the expression.

"To reinforce positive behavior, we have a treasure box for the students to pick from that includes, stickers, bandy, and bracelets," Donchess states.

After they have completed various trials with various students, they will analyze this data to see which specific types of interventions that the robots used worked best for the students. In addition to the large-reaching significance of this research in the field and determination of effective interventions, the robots also allow for an engaging educational experience.

"The robot operates like a toy. Students are more drawn to them and put more focus into it, since it captures their attention and is more interactive," Donchess states.

By improving the educational experience for students and contributing valuable knowledge to the research field, Donchess and the research team has added to and demonstrated the local and larger-scale significance of The Rich Center, Youngstown State University, and the city of Youngstown's progress by keeping education and development front-and-center. ■



Marissa Donchess

Scene-by-Scene: Breaking Down Power Dynamics in *Carol*

ALEX JENNINGS

From *Breakfast at Tiffany's* to *The Big Lebowski* to *Bridget Jones*, the cultural breadth of film stretches across genres, styles, and geographical landscapes. Beyond the unlimited refillable buttered popcorn buckets at the cheap seats (or, more popularly now, the walk to the microwave while shuffling between the bounty of streaming services at one's fingertips), the scholarship of film theory dedicates itself to dissecting these masterpieces—be it blockbuster or art house—for the details that lie in both the foreground and background. Focusing their studies on aesthetics, contexts, commentaries, and other endless avenues of analysis, the world of film theory offers infinite lenses of insight, stretching as far as—if not farther than—the world of film, itself.

Alex Jennings, an English MA student at Youngstown State University, has successfully secured herself a seat in the world of film theory with the publication of her critical prose “Same Women, Altered Autonomy: A close Look at the Perception of Power in *Carol*” in *Mise-en-scene: The Journal of Film and Visual Narration*.

Towards the start of her graduate education, Jennings took a film course that launched this finished piece. Unsure of the specifics, she knew that she wanted to center her project on a specific film and area of study.

“I wasn’t sure what I wanted to focus on, but I knew I had a high interest in queer theory and really loved the movie, *Carol*,” Jennings explains.

From here, it became all about the specifics. During the time Jennings was sifting for a solidified idea for her project, *Mise-en-scene* was searching for a featurette for their publication that broke down a movie scene frame-by-frame.

The term, *mise-en-scene*, refers to the various components, such as costumes, camera angles, and lighting, that compromise a single shot in a film.

With the focus of *mise-en-scene* in mind, Jennings narrowed her study to the various components that compromised two distinct iterations of the same scene in the film.

“I’ve seen this movie a dozen times, and I didn’t catch the significance of this scene until I watched it with this focus in mind,” Jennings elaborates.

The scene, and the centerpiece of the feature, that Jennings is referring to serves as the opening, as well as the closing, of the film and illustrates a conversation between the two leading heroines from each’s unique point of view. By examining the differences in sequencing, camera angles, and framing between the two perspectives of this scene, Jennings analyzes each frame’s *mise-en-scene* to craft her overarching argument and explore larger themes in the film, such as autonomy and power dynamics, as they relate to the women’s relationship and sexuality.

“Throughout the film, both characters go through this metamorphosis of character, and the power dynamics between the two shifts. I argue that, through this scene, the transition of power

is represented through the first and second iteration of this scene,” Jennings details.

As she finetuned her piece for publication, Jennings intertwined various queer theory texts into her piece to ground and illuminate her argument side-by-side still shots from the film, yielding the perfect culmination of her initial ambitions.

“It’s pretty amazing. When you actually go back and watch the movie through the lens of power dynamics, it’s like watching the movie in a whole new light,” Jennings remarks.

In addition to her contribution to the realm of film analysis, Jennings’ work is a testament to the wonder of watching films — and then watching them again. ■



Alex Jennings

Sifting through Archives and Arlen Specter: Following-up on Mitchell Topf's Fellowship

MITCHELL TOPF

Following a summer of sifting through The Arlen Specter Collection's archives, Mitchell plans to use the research he conducted and information he collected for his graduate thesis. Topf, a History MA student set to graduate this spring, was able to access the collection's archives after being awarded an Arlen Specter Center Research Fellowship.

Funded by the family of Arlen Specter, a former Pennsylvania Senator, the fellowship is granted to three applicants a year and requires recipients to complete both a presentation and a publishable paper. In addition to an impressive line to add onto his CV, the experience afforded Topf the opportunity to learn about archival research.

"This was my first archive experience, and it was a learning process that I guided myself through. Getting used to how to organize, document, and cite things was a process in itself," Topf states.

After wrapping up his archival research and presenting at a Specter Center event along with the two other recipients, Topf began preparing to write the publishable paper component of the fellowship that will double as his graduate thesis.

Topf was unsure of what he wanted to focus his thesis on when he entered his History MA Program; however, he knew he wanted to merge his undergraduate minor of Political Science into his work.

"It's hard to find a topic that isn't too specific or too broad that I can do enough research on and still be contributing something new to the field, so getting this fellowship helped me narrow down what I wanted to do," Topf explained.

While most current publications regarding Specter focus on his involvement in the JFK assassination or Bill Clinton's impeachment, Topf is able to contribute something new to the topic by focusing his study on Specter's career in the Middle East, specifically regarding Israel, Palestine, and Syria, merging his two academic interests into a cohesive and relevant project. Topf is exploring the significance of Specter's diplomatic relationship with the leader of Syria, President Hafez al-Assad.

"He developed a close personal and diplomatic relationship with him, which no one had ever done. He forged his own path in the area," he expands.

Intertwining sources from his archival research, such as legislative files, personal correspondences, and photographs, with secondary research and historical contexts, his core argument centers around Specter's cohesive view of Middle Eastern politics and peace, as well as the assertion of his impact on American foreign politics.

After finishing up his thesis, Topf will submit his completed work as the publishable paper for his Fellowship.

"To my understanding, it will not automatically be published anywhere, but I'm hopeful that it will be accepted in one of the publications I suggested in my initial application," Topf explains.

He believes his work could be a candidate for publication in journals on both an international and local level, such as The Middle

East Journal, The International Journal of Middle East Studies, or The Pennsylvania Magazine of History and Biography.

While Topf is keeping the possibility of pursuing a PhD in History on the table, for now, he is looking to gain experience in field work and is hopeful that his education makes him a marketable candidate for a variety of positions.

"My skillset as a historian is comprised of having to conduct research and analysis. I get a lot of information, and I have to synthesize it into something that people can understand. I think that skill alone makes me suited for many jobs. I could work a traditional history job, such as in an archive or museum, but any kind of industry is going to involve research and synthesizing information," Topf remarks.

Regardless of what trajectory his career takes, Topf has already proven his skillset as a historian and is certain to demonstrate the value of his studies. ■



Mitchell Topf

The Diversity of Scholarship Event: Showcasing Excellence Across Academic Disciplines



In a collaboration between the College of Graduate Studies and the Office of Research Services, The Diversity of Scholarship Event at Youngstown State University provides an annual platform for graduate students to present their scholarship. From performances to research projects, the event welcomes proposals from any area of study that demonstrates their academic achievements. The 2021 Diversity of Scholarship Event featured six presentations that personified the university's excellence across an array of disciplines.

Humra Ahassan and Prativa Pokhrel presented "A Study of Machine Learning Interpretability for Tabular Data and Mixed Date Types." By exploring the performance of various algorithms in Machine Learning models, Ahassan and Pokhrel sought to make Machine Learning accessible. They investigated ten different algorithms with different machine learning models, inputting different datasets to make predictions. One tabular dataset they input in the models was Adult Census Income based on various demographic information, in order to predict a person's income. After running several trials with different models, Ahassan and Pokhrel identified that the Gradient Boosting algorithm, a type of machine learning approach, performed better than the other nine algorithms. Additionally, they found that, for smaller datasets, Extra Trees and Random Forest, produced a comparable performance to Gradient Blending. Moreover, Ahassan and Pokhrel simplified the complex application of machine learning models through their preliminary identification of preferred algorithms.

Michael Alexander Barren presented "The Development of Bossa Nova Styles in Latin Jazz in the 1960s." Barren focused his work on Bossa Nova, a style of music that melds the traditional Brazilian rhythms of Samba and with the harmonic and melodic complexities of Jazz. "The main goal is to develop more of a catalogue of bossa nova tunes to track more of the developments over this short period of time between 1958 and 1965. If I continue this research, I would love to look at the developments of many more tunes," Barren explains. During his presentation, Barren explored and demonstrated the development of this style through various examples of the use of these musical techniques in different songs during the period. Specifically, Barren discussed the history of "The Girl from Ipanema," a famous bossa nova song. Tracing the evolution of this song throughout the 60s, Barren demonstrated the cultural roots and historical progression of Bossa Nova.

Kailey Hall presented "An Aesthetic Musical Experience and AI: Music as a Gateway to AI Sentience." Coughlin, a Music Performance MA student, sought to merge her passion for robotics with her passion for music. "I have always been interested in robotics and artificial intelligence from the time I was very little. Growing up, I thought I would be a social roboticist, until I picked up my clarinet and fell in love with music. I knew I wanted to find a way to combine the two," Coughlin states. She was provided with the opportunity to blend these two passions together in

her Research in Music course and was guided through the process by Dr. Ewelina Bockowska. While the little research done between robotics and music focuses on Artificial Intelligence as a tool for music, Coughlin's goal was geared towards illuminating how music can advance Artificial Intelligence. "It showed me where I may want to take my career in the future and that it is possible to combine the two fields that I grew up being so passionate about," Coughlin states. Overall, Coughlin's research serves as a demonstration of the progress that can be made through interdisciplinary studies.

Joseph Spurio presented "Feeling the music: Implications of Empathy-Based Pedagogy in the Urban Music Classroom." Spurio spoke on challenges that students in inner-city schools face and asked centered his project around one question: "How can I teach these students?" Seeking to find music education methods that engage students at inner-city schools, Spurio suggests that pedagogical practices rooted in empathy can yield student success. Spurio explored various elements that comprise empathy and empathetic practices, as well as the lack of proper preparation and support that music teachers in urban settings experience. Spurio noted that students' musical education can further affect other areas of their education and emotional growth, citing studies that demonstrate the link between the study of music's correlation with more successful learning outcomes across the board. Spurio proposed that with an empathy-based pedagogy that focuses on individualized instruction with flexible curriculum can yield better learning outcomes in students' musical, as well as academic, education. "After exhaustive research and uncovering similar instances where urban music educators were able to foster student success, I can confidently provide the answer to the question that plagues every new urban music teacher. "How can I teach these students?" With empathy," Spurio concludes. ■

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Abigail Hollowell presented "Autism Spectrum, Disorder in Females: Inter-Professional Diagnostic, Classification, and Practical Considerations." Hollowell created and presented her literature review that surveyed discussions and scholarship related to females with autism spectrum disorder. "Females with ASD are often not diagnosed or misdiagnosed, and it can cause lifelong struggles for the individual," Hollowell explains.

In addition to her presentation at The Diversity of Scholarship Event, Hollowell recently presented in Boston for the National Association for School Psychologists.

Edward Jackson presented "Unmasking Harriet Jacobs: A Critical Examination of Female Slave Narrative Literary Techniques." Examining Harriet Jacobs published text side-by-side additional evidence he found in the archives, Jackson discussed the masking techniques used in Jacob's writing, specifically in reference to the masking of the violence and sexual abuse she endured. "Some of this happens when she pivots from first to second person. I looked at the masking techniques used in these passages and then looked at other writings related to her from that time, such as her brother's publications, correspondences with her editor, and letters to the editor of the *New York Times* published under a pseudonym. I contend that she uses these masking techniques to reveal her own experiences," Jackson explains. Noting the sentimental style of Jacobs' audience, Jackson asserts that Jacobs masked and omitted the most violent aspects of her narrative for a specific purpose. "What happened with Jacobs' publishing story holds modern day significance in noting whose voices actually get to be heard," Jackson states. After being peer reviewed and revised, Jackson's piece will be published in *The Journal of African American Studies*. ■

The 2022 Three Minute Thesis Competition

The Three Minute Thesis competition was held virtually this year. The competition calls for participants to channel their research, presentation, and communication skills to cleanly and concisely articulate their argument to a non-specialist audience. Abhishek Shah, who presented Eye Tracker Analysis of Driver Visual Focus Areas at Stimulated Road Network, was the first-place winner of this year's competition. In second place, Van Nguyen presented Development and Application of an ICP MS Procedure for the Determination of Metals in Soils, Sediments, and other Environmental Samples. Honorable mentions include Michael Deak, presenting A Study of Machine Learning Interpretability for Tabular Data with Mixed Data Types, Bhanu Sri, Pilla, presenting Smart Drone Three Phase Motor Drive, and Mitchell Topf, presenting Falling into Place: Israel, Syria, Arlen Specter, and the Greater Prospect of Middle Eastern Peace. ■

Creating Community Through Musical Expression

SIERRA MCCORVEY

Watching stars sing cadenzas and coloraturas on Sesame Street, Sierra McCorvey fell in love with opera. However, McCorvey's upbringing was no stranger to the musical arts.

"Music was always a part of my family. My aunt was an opera singer who toured Italy before returning to the Youngstown area. My grandmother was a pianist who graduated from Dana School of Music in the 40s, and my father was a clarinetist and vocalist who graduated from Dana School of Music in the 80s," remarks McCorvey.



Sierra McCorvey

Continuing her family's legacy at Youngstown State University, McCorvey earned both her Bachelor of Arts and Master's of Music in vocal performance at the Dana School of Music. During her time here, McCorvey starred in university theatrical productions, as well as participated in larger community performances and programs, such as Opera Western Reserve and the Youngstown Symphony Orchestra.

"My education wasn't limited to YSU classrooms. My professors went out of their way to make sure I received real life experience in music and education," McCorvey notes.

Seeking to pay her education forward, McCorvey shares her talents with the Youngstown community's younger generations by working with local nonprofits.

"There's nothing that brings me more joy than passing on the wonderful gift of music that has been passed on to me. My passion and excitement lie in inner-city kids, the ones that you typically wouldn't see holding instruments or on opera stages. I want to share with them the joys of music that I have experienced and be an advocate towards music and fine arts in their life," McCorvey states.

McCorvey has continued her own education, as well, at the University of North Texas, where she is currently obtaining her Doctor of Musical Arts at the University of North Texas. Here, she is focusing her studies on vocal performance, voice pedagogy, and opera directing.

"I think it's so important in different communities of all walks to learn different types of expression. I feel like it's the very core of our humanity that can't be done all the time in numbers. It's writing, theatre, music, and dance that offers us a mirror and a lens into different individuals' experiences. The musical investment I had growing up is no longer the case for many students," McCorvey expresses.

For the future of her musical career, McCorvey strives to create and share the same type of community that engaged and shaped her as an artist. ■

Exemplifying Community Values: Putting Youngstown Education and Experience into Professional Practice

MEGAN FACTOR

The Youngstown community is engrained in Megan Factor's upbringing, identity, and outlook. Working side-by-side her mother, Youngstown State University's Director of Community Engagement Events, Factor spent her adolescence volunteering at the university's annual Summer Festival of the Arts and acclimating to the city's culture.

"My mom has spent her whole life here and her whole professional career being a community leader to enact positive change that brings our community together through arts and culture, so I grew up being in our community's arts and culture space. With local music, artists, and food, I feel like everything that's good about our community is distilled in this weekend," Factor states.

Factor's initial experiences in the community and on campus made her transition to a Youngstown State university student seamless. She was able to apply her previously established network and continue growing her connections through the university's invaluable resources.

After earning her Bachelor of Science in Business Administration, Factor continued her YSU career by obtaining a Master of Business Administration in 2020.

"I think the strongest aspect of an education at YSU is the professors and faculty members' dedication to students that goes beyond their role as an educator to help make students well-rounded individuals," Factor states.

During her graduate studies, Factor was afforded the opportunity to develop the William College of Business Administration's brand image, participate in brand creation competitions, and extend her education beyond her specific focus.

Factor credits her distinguished status as a business professional to the college's academic approach.

"Because the curriculum is structured in a way that educates you beyond your specific focus, it exposes students to various aspects of business and helps them become well-rounded professions," Factor states.

After her graduation, Factor successfully put her studies into practice and proved the value of her education. Currently, she operates Dash & Verve Design, her self-started company, where she creates digital marketing materials for clients, as well as custom decorations, gifts, and keepsakes. In addition to her own business ventures, Factor serves as the content manager at Mus, a branding and content marketing agency located in downtown Cleveland.

"Primarily doing a lot of writing, I take the team's developed strategy and then take into account the medium that the project will be distributed to the audience on," Factor explains.

Factor hopes to continue implementing the skillset she developed during her education and hopes to one day serve as a content director or creative director.

While she migrated away from home and relocated to another Rust Belt city, Factor carries her Youngstown roots with her.

"Something I learned from YSU and Youngstown is the importance of community and that it's so important to be dedicated and invested

in any situation to overcome the barriers you are presented with. When I hear colleagues talk about young professionals, it seems like they don't have the professional and personal skillset that really sets Youngstown State University apart," Factor asserts.

Missing her home, community, and alma mater, Factor states that she is looking forward to returning this summer for The Festival Arts and absorbing herself in the culture that served as the catalyst for her career. ■



Megan Factor

Graduate Thesis and Dissertations

Fall 2021 Thesis Titles

Catena Francesca Shortreed, "Examining Political Persuasion and Gender Communication Between Heterosexual Spouses"

Stephanie Lynn Virgallito, "The Impact of Social Media Communications on Consumer Behavior: An Examination of Television Networks' Social Media"

Dragan Juzbasich, "The Effect of Mesenchymal Stromal Cells Platelet Rich Plasma"

Aastha Gurung, "Food Desert Mapping in Youngstown, Ohio"
Annah Bochaberi Oigo, "Gene Expression in Long term Myoblast/ Myocyste Cultures mRNA Analysis"

Nadiya Qavi, "Identification and characterization of a gold sensitive transposon mutant in *Stenotrophomonas maltophilia* Oak ridge strain ORO2"

Joan O'Connell-Spalla, "Medical Laboratory Testing Personnel Perception of Professional Status and Engagement in Professional Development and Career Advocacy"

Charles Martin Dwyer, "Spatially-Graded Elastomeric Lattice Structures with Integrated Electronic Sensors"

Eleanore Rogenski, "Examining Political Persuasion and Gender Communication Between Heterosexual Spouses"

Jacklynn Mercer, "Examining the Complexities of the Teacher-Principal Communication Relationship in a K-12 Educational Setting"

Marcus A. Harden, "Computational Fluid Dynamic Analysis of the TJT-3000 Micro Turbine Engine"

Spring 2022 Thesis Titles

Humra Ahsan, "A Study of Machine Learning Interpretability For Tabular Data With Mixed Data Types"

Asma S. Allababdeh, "Electrochemically Regulated Polyelectrolyte Complex for Smart Wound Dressings"

Christopher Y. Bansah "Fabrication and Characterization of Ni-Mn-Ga Thin Films from Binder Jetting Additive Manufactured Sputtering Target"

Muneer Barnawi, "Investigation of Electroplating 3D Printed Antenna & Creating 3D printed lithium Battery"

Chase Carpenter, "The Use of Checklist to Teach Creation of Functional Analysis Graphs in Google Sheets"

Carolyn Carradero-Santiago, "3D Printing: Spatter analysis Manufacturing Processes Electronics Integration and Applications"

Steven C. Caumo, "That Hateful Shape: A Novel"

Allison N. Clark, "Christian Nationalists' Response to the Black Lives Matter (BLM) Movement and the Death of George Floyd: Select Churches and Organizations in Southern California Nevada and Arizona"

Alicia N. Cowles, "Residential Care Facility Violations in the State of Ohio from 2014-2016: Examining Violations and Regulations Related to Memory Care"

Kristen S. Crish, "The Impact of Language Impairment on Learning Disabilities in Writing for K-12 Students: A Meta-Analytic Investigation"

Michael D. Deak, "A Buff *Bradypus* or an Elephantine Edentate? Physiological and Ecological Insights into Giant Ground Sloth Integument"

Bailey N. Fields, "An Investigation of the use of Organizational Behavior Management Interventions by Practicing Behavior Analysts"

Brian Friedrich, "Thermal-stress characteristics of large area additive manufacturing"

Brandi J. Gatte, "The Gas-Phase Ligand Exchange of Calcium $\text{Ca} \leq$ -Diketonate Complexes"

Olga Gutan, "Comparing the Spread of Infectious Disease Using Graph Theory versus Network Theory"

continued on next page

Spring 2022 Thesis Titles continued

Jacob Harver, "Mahoning Movement: A history and advocacy of transportation in the valley"

Luke Hetzel, "Investigations into Many Valued Normality"

Aamirah Howard, "A Current Review of Errorless Learning and Discrete Trial Teaching (or Error Correction) to Teach Adaptive Skills to Adolescents With ASD"

Roy E. Jackson, "Reel Around the Fountain"

Kerry Johnson, "The Impact of Digital Manufacturing Techniques on the Advancement of Antenna Design and Functionality"

Scott R. Johnson, "Incarnate"

Barry Kimpel, "The Jeffersonian Ideal: Liberal Arts Education and the Hope of Democracy in Rural Classrooms"

Hannah Klacik, "Architecture and Community: Congregation Rodef Sholom Youngstown Ohio"

Joelle Lambert, "Stories by Joelle Lambert"

Katie M. Martin, "How the Student Writer is Constructed in First-Year College Composition: Evidence from the Composition Studies Literature and Instructor Survey and Textbooks"

Zachary McConnell, "The Simulation of life and decision-making using AI and Unity"

Sohaib Mehboob Alam Mohammed, "Assessment of Water Quality of Four Mahoning River Sub-Water Northeast Ohio"

Jeniffer S. Nkopio, "Assessment of Forest Cover Change on Carbon Capture in the Youngstown Metropolitan Area"

Cody North, "Reported Use of Equivalence-Based Instruction Among Practicing Behavior Analysts"

Atinuke E. Ogungbayi, "Analysis of Alternative Splicing Events in the Transcriptome of Potato plants"

Amanda Roby, "Patient Adherence with Positive Airway Pressure Devices Used in the Treatment of Obstructive Sleep Apnea: What are Contributing Factors at Sleep Centers?"

Alexis Saunders, "INTEGRATING THE FLUHARTY KIT INTO ABA: in comparison to the BLAF"

Sierra Schneggenburger, "The Effects of Different Withing Pair Delays on Emergent Symmetrical Relations Between Stimuli"

Bobbi H. Schragal, "Enterobacter sp. YSU Plasmid has many of the Properties of the InCHI2 Plasmids"

Kimberly S. Sharshan, "The Discernment of Teacher Care Discovered in Elementary Student Drawings"

Karma A. Shehadeh, "Power Substation PCM System-PV Backup"

Mitchell Topf, "Falling into Place? Israel Syria Arlen Specter and the Greater Prospect of Middle Eastern Peace"

David M. Toth, "Ohio Principals with Students in Grades Six through Twelve and Their Perceptions and Procedures on Student Cell Phone Use within Their Schools"

Anna C. Truman, "Educational Attainment: An Agent-Based Model"

Janis L. Ulicny, "Freshman Year Programming and Its Impact on High School Graduation Rate"

Aneesa Warren Ralston, "Registered Behavior Technicians, Æ Training Experiences for Severe Problem Behavior: A Survey"

Holly L. Welch, "Perspectives of SROs Administrators Teachers and Recent Graduates on School Safety and Arming Teachers A Mixed Methods Study"

Madalynn T. Wendland, "Aberrant General Movements in Infants with and without Newborn Detectable Risks: A Preliminary Analysis"

Todd Werth, "Effects of Administrative Covid-19 Policies on Community Contacts and Use of Force Incidents in Police Agencies"

Ronald J. Yarwood, "Multi-Sensor BLE Platform Using TI Wireless MCU and Mobile Application"

Anne K. Zito, "Multi-Dimensional Silence: Examining Teacher Perspectives on Silence during Staff Meetings"



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