Computer Science

POSTER SESSIONS
Innovation Studio, Second Floor

10:00am-12:00pm
PATHly Visualizer: Exploring Anycast Stability in IPv4 and IPv6
Jack Campanale, Jasper Meggitt, Yash Patel, Cindy Trac
Advisor: Mark Claypool
Sponsor: Fastly
Project Center: Silicon Valley Project Center

10:00am-12:00pm
Developing a 3D Food Printer
Ashley Burke, Nupur Shukla
Advisors: Rodica Neamtu, Danielle Cote (ME)

10:00am-12:00pm
Z^3 Wellness: An Enhanced Sleep Health Application for Better Sleep and Mental Wellness
Eri Kim, Patrick Mejia
Advisor: Carolina Ruiz

10:00am-12:00pm
Warden: Multi-Layered Control Flow Integrity in Web Applications
Keith DeSantis, Samuel Parks, Kush Shah
Advisor: Craig Shue

10:00am-12:00pm
Neurotype Cafe Visual Novel
Lena Dias, Harmoni Larrabee, Mitch Tanguay
Advisors: Rose Bohrer, Ben Schneider

10:00am-12:00pm
Data-Driven Computational Approaches in Pain Medicine
Aidan Burns, Lauren Flanagan, Smera Gora
Advisors: Lisa Ann Conboy (Harvard Medical), Benjamin Nephew (Biology & Biotechnology), Carolina Ruiz

10:00am-12:00pm
Efficiency Analysis of Partner Organizations: Poverty Stoplight
Kayla Brown, Rebecca Noris, Catherine Salvaggio, Hayden Smith
Advisors: Ryan Madan (PW), Daniel Reichman, Andrew C. Trapp (IE/DS)
Sponsor: Poverty Stoplight

10:00am-12:00pm
A Visual-Based Educational Support Platform for Teaching and Learning Neural Network-Based NLP Analytics
Jack Gomes, Daniel Johnson, Garrett McMerriman, John Prominski, Henry Yoder
Advisor: Chun-kit Ngan (DS)

10:00am-12:00pm
Understanding and Optimizing Mistake Messages in Mathematics
Shannen Lin, Siddhartha Pradhan, Chayanne Sandoval-Williams
Advisors: Neil Heffernan, Stacy Shaw (SSPS)

10:00am-12:00pm
Advancing Diffusion Models for Human Activity Recognition
Sirut Buasai, Jason Dykstra, Dillon McCarthy, Cindy Trac
Advisor: Elke Rundensteiner (DS)

10:00am-12:00pm
Exploring the Effects of Latency Compensation Techniques on Player Performance and Experience in FPS Games
Ivan Klevanski, Alexander Mitchell, Yihong Xu, Sitsano Young
Advisor: Mark Claypool
Sponsor: NVIDIA

10:00am-12:00pm
Fidelity: AI Based Anomaly Detection
Aruzhan Koshkarova, Nathan Kumar, Mitchell Sirois, Austin Zhou
Advisors: Marcel Y. Blais (MA), Robert Sarnie (BUS), Wilson Wong
Sponsor: Fidelity

10:00am-12:00pm
Patients Views of Cancer Immunotherapy on Social Media and Online Forums
Sidney Goldinger, Florkethnia Jolibois, Sierra Mangini, Mago Sheehy, Tiffany Wee Sit
Advisor: Ngan Chun-kit (DS)

10:00am-12:00pm
Mobile Device Software-Defined Networking
Matthew Hlushko, Ivan Martinovic, Jacob Salerno
Advisor: Craig Shue
10:00am-12:00pm  
**Developing a Wildlife Crime Media Aggregator**  
Julie Andrade, Michael Geary, Bao Huynh  
Advisors: Kyumin Lee, Renata Konrad (MG), Oren Mangoubi (MA)  
Sponsor: Meredith Gore, Patricia Raxter

10:00am-12:00pm  
**Feature Recognition of Aerial Images Using Machine Learning**  
Ryan Firenze, Margaret Munroe, Sebastian Pineda, Amos Roche, Arman Saduakas  
Advisors: Oren Mangoubi (MA), Gregory Noetscher (ECE)  
Sponsor: DEVCOM Soldier Center

10:00am-12:00pm  
**Sailbot**  
Samuel Alden, Douglas Moore, Cameron Pelletier, Owen Pfannenstein, Joshua Unger  
Advisors: William Michelson (RBE), Kenneth Stafford (RBE)

10:00am-12:00pm  
**NASA Lunabotics Competition 2022-23**  
Alex Brattstrom, Carter Bullock, Roopsa Ghosh, Patrick Hagearty, Helen Le, Joshua Moy  
Advisors: Kenneth Stafford(RBE), Joshua Cuneo(CS), Sponsor: NASA

10:00am-12:00pm  
**Fair Ranking Under Uncertainty**  
Marie Tessier, Sai Varun Vadlamudi, Brinda Venkataraman  
Advisors: Jon Abraham (MAC), Elke Rudensteiner

10:00am-12:00pm  
**USDA Foodborne Illness Outbreak Detection and Visualization**  
Katya Hartmann, Timothy Kwan, Jasmine Laber, Anne Lapsley, Liam Rathike  
Advisor: Elke Rudensteiner

10:00am-12:00pm  
**Coalition Formation and Scheduling for Heterogeneous Robot Swarms with Ant Colony Optimization**  
William Babincsak  
Advisor: Carlo Pinciroli

10:00am-12:00pm  
**Applying Explainable AI to Taxi Driver Classification**  
William Burke, Ian Coolidge, JinRyoul Kim  
Advisor: Yanhua Li

10:00am-12:00pm  
**Evolving Neural Networks**  
Gregory Conrad, Gabriel Deml, Aidan Horn  
Advisor: Joseph Beck

10:00am-12:00pm  
**FinTech Project B22 - Woo Sox - Improving Polar Park’s Total Fan Experience via the Woo Sox Mobile App.**  
Qui Nguyen, Kara O’Neil, Bridget Redgate  
Advisors: Sara Saberi (Business), Robert Sarnie (Business), Wilson Wong  
Sponsor: Worcester Red Sox  
Project Center: FinTech Project Center

10:00am-12:00pm  
**Worcester IS Fab Lab MQP Blockchain and Machine Learning**  
Joshua DeBare, Mabel Konadu, Kelsey Moody, Cameron Morreale  
Advisors: Marcel Blais (MA), Rob Sarnie (BUS), Wilson Wong  
Sponsor: Embue, Cyvl, Worcester IS FAB Lab

10:00am-12:00pm  
**Audio Journal Android App**  
Anna Cherkinsky, Vansh Patel, Reily Siegel  
Advisors: Lane Harrison, Rodica Neamtu  
Sponsor: Audio Journal

10:00am-12:00pm  
**ScreamaeraX: Modeling Laryngeal Surgical Robots Using Differential Dynamic Logic**  
Natalie McClain  
Advisors: Rose Bohrer, Loris Fichera (RBE)

10:00am-12:00pm  
**The Way**  
H Chen, J Colley, F Shen, J Smith  
Advisors: M Ahrens, Walt Yarbrough (IMGD)

10:00am-12:00pm  
**Third Party Aggregator Development for FDX API Integration at Citizens Bank**  
Chelsea Chang, Kevin Inger, Jonathan Metcalf, Jack Sullivan  
Advisors: Robert Sarnie (BUS), Wilson Wong  
Sponsor: Citizens Bank  
Project Center: Wall Street FinTech

1:00pm-3:00pm  
**Developing Quality of Life Features for the E-TRIALS Platform**  
Emily Gorelik  
Advisor: Neil Heffernan
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<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Presenter(s)</th>
<th>Advisor(s)</th>
<th>Sponsor</th>
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<td>1:00pm-3:00pm</td>
<td>Goatconnect - developing a student-athlete network application</td>
<td>Loren DiLoreto, Jacob Feiss, Harrison Kyriacou</td>
<td>Rodica Neamtu</td>
<td>Chris Robertson</td>
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<td>Chaos Engineering for Cloud Resiliency</td>
<td>Nestor Lopez, Renee Sawka, Olivia Scola</td>
<td>Robert Sarnie (BUS), Wilson Wong</td>
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<td>GPU-Accelerated Simulations for Artistic Performance</td>
<td>Evelyn Tran</td>
<td>Charles Roberts</td>
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<td>Exposing the Imposter’s Hunger for Power: Hardware Keylogger Attack</td>
<td>Brianna Roskind</td>
<td>Patrick Schaumont (ECE), Robert Walls</td>
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<td>Detection</td>
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<td>Simulator for Teacher-Student Classroom Interactions</td>
<td>Mary Braen, Gabriel Camacho, Emily Lin, Ryan Luu, Aidan Mulcahey, Jonathan Palmieri</td>
<td>Jacob Whitehill(CS)</td>
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<td>Generating Solitaire Games</td>
<td>Patrick Eaton, Benjamin Gilchrist, Alex Martinho, Kyle McFatter, Jason Odell</td>
<td>George Heineman</td>
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<td>Robot Escape Room</td>
<td>Olivia Bell (IMGD/CS), Liang Lu (RBE/CS), Zachary Sarrett</td>
<td>Berk Calli (RBE), Melissa Kagen (IMGD), Gillian Smith</td>
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<td>Small-Size Soccer Robots</td>
<td>Spencer Belleville, Conner Christensen, Ashley Espeland, Logan Rinaldi, Nathan Rogers, Benjamin Schwantes, Evan Vadeboncoeur, Yifei Zhao</td>
<td>Stephen Bitar (ECE), Joshua Cuneo, Alireza Ebadi (ME), Siavash Farzan</td>
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<td>Sewn Into Memory: Reliving Memories Through An AR Quilt</td>
<td>Amanda Jones, Megan Letendre, Elise Nerden</td>
<td>Gillian Smith, Erin Solovey</td>
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<td>Remote-Controlled Mixed Reality Driving Experience</td>
<td>Greg Klimov, Samuel Kwok, Cole Manning, Mason Powell, Sam Rowe, Adam Yang</td>
<td>Tian Guo</td>
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<td>SocialSight: Analyzing Social Media</td>
<td>Carlie Flanagan, Kiara Munz</td>
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<td>Distribution-Driven Augmentation of Real-World Datasets for Improved</td>
<td>Stephen Price</td>
<td>Rodica Neamtu, Winston Soboyejo (ME)</td>
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<td>Cancer Diagnostics With Machine Learning</td>
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<td>BCI</td>
<td>David Danielian</td>
<td>Ally Howell (BCB), Erin Solovey</td>
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<td>Learning Debiased Representations for Long-Tailed Visual Recognition</td>
<td>Prudence Lam</td>
<td>Ziming Zhang (ECE)</td>
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<td>Creating the Pwnable Claw Machine</td>
<td>Arthur Ames, Charlotte Clark, Evelyn Dube, Declan Murphy</td>
<td>Robert Walls, Loris Fichera (RBE)</td>
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<td>Piniverse: General Content Creation Framework</td>
<td>Gabriel Buonomano, Shiming De, Alexander Kwan, Yongcheng Liu, Yihong Xu</td>
<td>Tian Guo, Gillian Smith</td>
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<td>Analyzing DASH Video Streaming over Geostationary Satellite Networks</td>
<td>Daniel Quackenbush, Kristi Prifti, Zijian Guan</td>
<td>Mark Claypool</td>
<td>Viasat</td>
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1:00pm-3:00pm
7Factor 2022-2023: Staffing Tool
Keval Ashara, Othnien Bondah, Nicholas Li
Advisor: Joshua Cuneo
Sponsor: 7Factor Software, LLC

1:00pm-3:00pm
Built Environment MQP
Hailey Anderson, Phebe Cunningham, Payton Dean,
Gianna Viele, Sebastian Villacorta, Nicholas Whalen
Advisor: Leonard Albano (AE) Soroush Farzin (AE)
Ali Yousefi

1:00pm-3:00pm
Electric Triumph Spitfire MKIV (1972)
Blaise Pingree, Bradley Sprunger, Grace Magnotta,
Pat Flanigan, Sean McMillan, Shane Donahue,
Wynn Roberts
Advisors: Craig Putnam (RBE), Donald Brown
(ECE), Joshua Cuneo, Nicholas Bertozzi (RBE),

1:00pm-3:00pm
Incremental Earley Parsing of Incomplete Inputs
for Structured Editing
Finn Wander
Advisor: Gary Pollice

1:00pm-3:00pm
Expanding Beecology Project's Data Analysis
Capabilities for Butterfly Observations
Sophia Strano
Advisors: Carolina Ruiz, Elizabeth Ryder (BCB)

1:00pm-3:00pm
Audio Journal: empowering visually impaired
people to access exhibits at the Worcester Museum
of Art
Zane Carey, Vrandon Perez, Daniel Rabinovitz,
Marko Viša, Michael Zeolla
Advisors: Lane Harrison, Rodica Neamtu
Sponsor: Worcester Art Museum

1:00pm-3:00pm
Bismuth: A Programming Language for
Distributed, Concurrent & Mobile Systems
Alex Friedman
Advisors: Rose Bohrer, Yunus Telliel (PW)

1:00pm-3:00pm
Development of Predictive and Prescriptive
Analytical Models Using Customer, Revenue, and
Usage Data
WBazakas-Chamberlain, AKihu, MO'Connor, SWu
Advisors: Robert Sarnie, Wilson Wong
Sponsor: SaaSWorks
Project Center: FinTech
1:00pm-3:00pm
Detecting Clouds and Forecasting Power of a PV System
Erin Carter, Emma Pruitt, Olivia Rockrohr, Megan Hanlon
Advisors: Tian Guo, Gregory Noetscher (ECE), Ziming Zhang (ECE)

1:00pm-3:00pm
Convert a Windows-based software (BoGL) to a Web-based system
Margaret Earnest, Jakob Misbach, Anthony Vuolo III
Advisors: David Brown, Pradeep Radhakrishnan