Madeleine Weber

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Education

Purdue University | West Lafayette, Indiana
August 2023
Elmore Family School of Electrical and Computer Engineering
Master of Science in Electrical and Computer Engineering
Major: Electrical and Computer Engineering
GPA: 3.49/4

West Virginia University | Morgantown, WV
May 2022
Statler College of Engineering and Mineral Resources | Honors College
Bachelor of Science in Computer Engineering
Major: Computer Engineering
GPA: 3.61/4   Dean's List: 4 semesters, President's List: 1 semester

Project Experience

Understanding Democracy: A Government and Politics Guide
App Development
- Objective: to make learning about the U.S. government more accessible.
- Learned how to use XCode to implement app interface and functions.
- Currently on the Apple App Store for download, 100+ downloads to date.

EcoCAR Mobility Challenge   August 2021 – May 2022
Propulsion Controls Modeling Team
- Worked with a Simulink model of HEV propulsion controls.
- Performed research on Equivalent Consumption Minimization Strategies.

Work Experience

Aon, Remote June 2023 - Present
Software Engineer IP Litigation Consultant
- Reviewed Intellectual Property materials for relevant information.
- Performed research on growing technology and its impact on the IP sphere.
- Presented findings and technical concepts to colleagues.

NASA, Morgantown, WV   August 2020 – May 2023
Static Code Analysis R&D Fellow
- Developed a tool to improve the efficiency and accessibility of static code analysis tools.
- Presented Static Code Analysis research to other SCA analysts and IV&V staff.
- Improved tool documentation and Static Code Analysis training resources.

WVU Upward Bound, Morgantown, WV   May 2020 – August 2020
Academic Coordinator
- Mentored underprivileged youths to ensure their success in summer classes.
- TA-ed and tutored students in a variety of classes, with a focus on math and science.

WVU Statler IT, Morgantown, WV   August 2019-May 2020
Computer Lab Proctor
- Supported basic IT services.
- Supervised student use of computer labs and assisted with technical issues.

WVU Research Apprenticeship Program, Morgantown, WV   August 2018-April 2019
Research Assistant
- Assisted in the study of electrical stimulation therapy on stroke patients.
- Presented research at WVU's annual research symposium.
- Worked with Virtual Reality and 3D printing.

Involvement

- Society of Women Engineers   August 2018 - May 2022
  Committee member
- WVU Alpha Omega Epsilon   January 2019 - May 2022
  Fundraising Committee Member
- Food Recovery Network   August 2020 - May 2022

Scholarship

Publications:
- "CST: A Tool for Improving the Efficiency and Effectiveness of Static Code Analysis Tools", NASA OSTEM Internship Program Abstract Book (internal publication), Summer 2021

Presentations:
- Weber, M., Thomas, A., and Gritsenko, V. Implementation of Virtual Reality and Leap Motion Capture in Stroke Patient Therapy. Poster Presented at: WVU Research Symposium; April 2019; Morgantown, WV.
- Weber, Madeleine, and O'Dell, Cecil. CST: A Tool for Improving the Efficiency and Effectiveness of Static Code Analysis Tools. Oral Presentation w/ PowerPoint at: NASA Intern Symposium; July 2021; Remote.
- Weber, Madeleine, and O'Dell, Cecil. Technical Discussion - SCA R&D: The Next Generation of IV&V SCA. Oral Presentation w/ PowerPoint at NASA IV&V; June 2022; Remote.
- Weber, Madeleine. Static Code Analysis Summit - Checker Selection Tool Update. Oral Presentation w/ PowerPoint at NASA IV&V; January 2023; Remote.

- **Maxine and Edward Nichols Fellowship**: August 2022 - May 2023 Purdue University

Programming Languages

- Python
- C
- C++
- Java
- Matlab