Matthew Rubino

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Education

University at Buffalo, The State University of New York   *Expected Graduation: December 2023*

- Degree: Computer Science BS
- Overall GPA: 4.0/4.0
- Honors and Awards: Pride of New York Scholarship, University Honors College, Dean's List

Skills

- Technologies: Python, Go, C, C++, Docker, HTML, CSS, JavaScript, React, Flutter, Firebase, AWS
- Tools: Git, GitHub, Zenhub, VSCode, Neovim, Windows, Linux

Work Experience

Embedded Sensing and Computing Group - Buffalo, NY   *June 2021 – Present*

Research Assistant (STREAM Digital Twin)

- Developing interdisciplinary smart manufacturing system under advisement of three UB faculty members
- Leading five students from three engineering majors to build distributed manufacturing platform
- Architecting application backend and leveraging Python, OpenCV, and AWS for implementation
- Placed first out of fourteen submissions to Agrusa CSE Student Innovation Competition 2022

Research Assistant (Mellowing Mind)

- Collaborating with UB School of Nursing to create smart health app for mental health treatment
- Maintaining and upgrading app for over two years to facilitate ongoing research study
- Improving communication with non-technical audience through correspondence with nursing team

Odoo - Buffalo, NY   *June 2023 – August 2023*

Full Stack Engineer Intern

- Designed and implemented seven new Odoo modules for Odoo's ecommerce platform over eleven weeks
- Integrated Apple Pay and Google Pay APIs into checkout flow, reducing checkout friction

Physical Hydrogeology Lab - Buffalo, NY   *December 2022 – January 2023*

Research Assistant

- Developed survey distribution system for hydrogeology project serving over 300 stations nationally
- Automated survey tracking process using Django, SQLite, Twilio API, and Qualtrics Webhook API

Projects

Smart Smoke Detector (UB Hacking Fall 2020)

- Led team of three students to create smart smoke detector system in 24 hours
- Implemented microcontroller software using C++ and Arduino API
- Won first place overall out of 90 competing teams

Publications

- Rubino, M., Weng, M., Chen, J., Saptarshi, S., Francisco, M., Francisco, A., Zhou, C., Sun, H., and Xu, W. (2022). A Campus Prototype of Interactive Digital Twin in Cyber Manufacturing. *Proceedings of the Twentieth ACM Conference on Embedded Networked Sensor Systems*, 758–759. https://doi.org/10.1145/3560905.3568049