Silas M. Zehnder

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EDUCATION

University of Michigan College of Engineering, Ann Arbor, MI — May 2019
Bachelor of Science in Engineering, Computer Engineering
GPA: 3.53 / 4.00
Accolades: Magna Cum Laude, University Honors, Dean's List

EXPERIENCE

DYNETICS — May 2018 - August 2018
Engineer Trainee I, RF and Electronic Warfare Solutions — Huntsville, AL

- Worked on a team of 10 to emulate a PowerPC processor in C++ and Python; emulator will be used to run simulations and find exploits in weapon systems
- Researched and designed the memory management unit for the emulator; generated documentation outlining design decisions and action items; led a 60-minute design meeting to confirm and discuss these design decisions with the team
- Co-led multiple meetings relating to internal interrupts and how they should be implemented in the system
- Implemented and rigorously tested PowerPC opcodes, ranging from memory access instructions to floating-point arithmetic instructions
- Worked collaboratively with the team to accomplish tasks using the Scrum Agile Software Development system
- Presented summer projects to department executives, ran an interactive demo of the emulator successfully performing an MD5 hashing algorithm

NOVACOAST — May 2017 - March 2018
Security Operations Center Analyst — Ann Arbor, MI

- Used multiple SIEM systems to monitor, detect, analyze, and resolve security incidents affecting clients in real-time to ensure integrity of systems and data
- Attended to clients' needs by writing informative and concise security reports, escalated severe compromises by calling the client to advise them of the situation
- Decreased false positives across all clients by tuning AI Engine Rules in the LogRhythm environment, thereby increasing productivity of the 25 person team
- Worked full time during the summer, 20 hours a week during school

MICHIGAN HYBRID RACING TEAM — Dec 2015 - Apr 2016
Power Distribution Module Team Member — Ann Arbor, MI

- Collaborated with a group of five students to design, prototype, test, and implement the power distribution module in the 2016 Michigan Hybrid Racing car
- Employed iterative design to reduce the size of the module's printed circuit board by 40%, ultimately reducing cost of the board
- Researched and tested electrical components for the circuit board to ensure an efficient and safe experience for the driver

SKILLS

Certifications: CompTIA Security+
Languages: C/C++, Python (Django, Flask), Javascript (React), Java, MATLAB
Software: Microsoft Office, AWS (EC2), SQLite, Git, Vim, JIRA, LogRhythm
Operating Systems: Linux (including Arch and Gentoo experience), Mac OS, Windows

PROJECTS

THE BREWHOB, SENIOR MULTIDISCIPLINARY DESIGN PROJECT

- Created a retrofittable espresso machine control board which allows coffee shops to upgrade their existing machines painlessly
- Prototyped and completed a working product within one semester in a group of 5 students with unique experiences and skillsets
- Personal contributions included network socket programming, embedded software programming, PCB component design, and documentation