

Sam Alexander Celani

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CAREER OBJECTIVE

Engineer with 5+ years of software development experience. Possess a bachelor's degree in Computer Engineering, with a strong focus on embedded programming. Looking to utilize my skills and knowledge in a new position in my field.

EDUCATION

Michigan Technological University – Houghton, MI

August 2014 – May 2019

Bachelor of Science in Computer Engineering

Department GPA: **2.91** | Cumulative GPA: 2.87

Outstanding Teaching Award

Member of Keweenaw Pride

PROJECT EXPERIENCE

Vice President, Wireless Communications Enterprise

Bird Sensor Team – **Project Engineer**

- Created a low-cost, low-maintenance sensor to aid in a time study of bird strikes on windows
- Primarily in charge of programming (Arduino)

Project: Sentinel, Personal Project

- Terminal-based Smart Home equivalent (Golang) and nodes (ESP8266)

Project: Soary!, Personal Project (WIP)

- Terminal-based correspondence games of Sorry! (Golang)

Project: Quotes, Personal Project

- Terminal-based fun with networked programs, to get “random” MOTD on login (Golang)
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WORK EXPERIENCE

Whirlpool Corporation – Benton Harbor, MI

April 2022 – Present

Embedded Software Test Engineer

- Conducted comprehensive testing of appliance connectivity across diverse product categories and software architectures
- Acquired proficiency with several in-house software tools for monitoring communications and flashing software
- Developed software tools on Raspberry Pi for router control to aid in automating tests, saving multiple workdays of manhours per software drop

Pilot Systems International – Farmington Hills, MI

May 2021 – Feb 2022

Associate Systems Engineer

- Wrote system and software level test scripts for a Vector HIL system
- Performed manual System of System testing using CANalyzer

Advanced Power Systems Research Center – Calumet, MI

May – August 2018 and 2019

APRA-E Project: NEXTCAR – **Research Assistant/Intern**

- Developed software for wireless V2V, V2C, V2I, and C2V communications using AMQ Protocol
- Intelligently redesigned routing topology for efficient, cycle-free, robust communication
- Developed ease-of-access tools for navigating the terminal
- Used Simulink, Python (pika module), RabbitMQ (message broker), Cohda DSRC (V2I transceiver)

Elec/Comp Learning Center Coach – Houghton, MI

Jan 2018 – May 2021

Embedded Systems Interfacing (EE4737) TA – Houghton, MI

Jan 2020 – May 2020

Hardware-Software Integration (EE3173) TA – Houghton, MI

Sept 2020 – May 2021

Electronics (EE3131) TA – Houghton, MI

Jan 2021 – May 2021

TECHNICAL SKILLS

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|-----------------------------------|------------------------------|
| • Microcontrollers (Arduino, ESP) | • Embedded Programming (MSP) |
| • IBM DNG | • IAR Workbench |
| • Quartus, Qsys, and AMP | • Microsoft Office |
| • Algorithmic Design/Analysis | • Software Testing |
| • Unix and Windows Development | • CANalyzer |
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