

DARREN MASCIOLI

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EXPERIENCE

Honeywell

August 2024 – Present

Embedded Engineer

Pittsburgh, PA

- Maintain and enhance legacy embedded products by updating Yocto Linux distributions, ensuring long-term product stability and compliance. (C, C++, Yocto, Linux)
- Serve as certified security advocate, proactively identifying, characterizing, and remediating security vulnerabilities to protect product integrity and customer data. (Security, Vulnerability Management)
- Design and implement robust CI/CD workflows using GitLab Actions and Docker, reducing release cycle times by 50% and increasing deployment reliability for embedded platforms. (Github Actions, Docker, CI/CD)
- Developed and rolled out a new product release process to support the launch of next-generation embedded solutions. (Github Actions, Docker, Cross-Team Collaboration)

Siemens Mobility, Inc.

Software Engineer | Pittsburgh, PA

Jan. 2023 – August 2024

- Sole developer for software product to enable remote download of data for freight customer, resulting in estimated annual savings of \$550k. (C/C++, CMake, Python)
- Planned, designed, and developed software tool to assist railroads download data and compile FRA reports. (C#, Python, Networking)
- Supported rail customers by providing bug fixes and software updates to deliver contract requirements. (C++, C, Requirements Management)
- Interviewed candidates and provided mentorship for Mobility Engineering Development Program.

Automated Rail Rotation | Pittsburgh, PA

June 2022 – Dec. 2022

- Expanded software features for distributed train dispatch system. (Python, C++, Kubernetes)
- Developed skills in continuous integration and development using automated build pipelines and deployment tools. (Docker, Helm, Gitlab CI/CD, Kubernetes)

PTC Software Rotation | New York, NY

Jan. 2022 – June 2022

- Wrote unit tests for Positive Train Control system utilizing CI/CD platform. (C++, Jenkins, CI/CD)
- Worked with development team in Agile environment to fix defects in code base. (C++)
- Effectively analyzed legacy code and safety certified compiler behavior to correct memory initialization errors. (C++)

Wayside Rotation | Pittsburgh, PA

June 2021 – Dec. 2021

- Designed and manufactured custom circuit board for wheel detector simulation circuit. (PCB Layout, Schematic Design)
- Wrote Arduino code to generate precise timing for wheel detector simulation signals. (Arduino, C++)

Onboard Software Rotation | Pittsburgh, PA

Jan. 2021 – June 2021

- Created database of train system communication messages along with web interface to allow for synchronized development process. (Python, SQLite)
- Wrote automated scripts to find errors in logs to track down software issue. (Python)
- Assembled and coded simulator for crash-hardened device to test functionality of new software features and RS485 communication on train system. (Arduino, C++, Soldering)

Bridge Fusion Systems

May 2018 – July 2020

Embedded Software Engineering Co-Op

Plum, PA

- Worked with various clients and adapted to multiple technology stacks to deliver prototypes and production-ready solutions using embedded platforms. (C, STM32, NXP, Python, C#)

SKILLS

Languages: C, C++, C#, Python, Java, HTML/CSS, JavaScript, SQL

Tools: Visual Studio, Eclipse, Git, SVN, Flask, WPF, Jenkins, CMake, Kubernetes, Docker, Helm, VMware, VirtualBox, Github Actions

Operating Systems: Windows (10, 7), Linux (Ubuntu, Debian), Embedded Yocto Linux, RTOS, ThreadX, Docker, Raspberry Pi OS

Hardware: Soldering, Oscilloscope, DMM, UART, BLE, I2C, SPI, 1-Wire, Modbus, Ethernet, Schematic Design, PCB Layout

EDUCATION

University of Pittsburgh

Aug. 2016 – Dec. 2020

Bachelor of Science in Computer Engineering | Minor in Political Science

Pittsburgh, Pennsylvania

Graduated Summa Cum Laude

GPA: 3.822

PROJECTS

2020 NAESC Engineering Leadership Summit | Conference Director

April 2019 – March 2020

- Organized two-day national conference for almost 300 attendees
- Managed budget of approximately \$80,000 and communicated purpose of conference and national organization to secure approximately \$10,000 worth of corporate sponsorship deals
- Facilitated virtual conference activities after cancellation of event due to COVID-19

LEADERSHIP

Engineering Student Council

Fall 2017 – Fall 2020

Conference Director, Vice President, Board Member

University of Pittsburgh

- Worked with other officers to promote academic, professional, and social development within Pitt Swanson School of Engineering.
- Attended regional and national conferences to develop leadership and networking skills.