

ANDREW LOEBS

[aloeb29.github.io](https://github.com/aloeb29)

Software Developer

EXPERIENCE

KINETIC VISION | Firmware Engineer

January 2020 – *Present* | Cincinnati, OH

- Developing bare-metal embedded software, primarily for IoT and sensing applications.
- Working on tools and infrastructure for testing and data collection of a large-scale, distributed robotics platform.

Skills Utilized: C, Python, ARM Cortex-M, Linux, Docker, C#/.NET, and Git.

XACT MEDICAL | Firmware Development Engineer, Contract

February 2018 – January 2020 | Cincinnati, OH

- Developed two-axis robotic control system capable of high-speed movements with sub-millimeter accuracy.
- Core team-member of NSF funded project for dynamic compensation of medical robot based on user and patient movement.
- Designed complex data logging system to provide rich test results in benchtop and pre-clinical testing.
- Built desktop application for live controls system tuning and functional testing of medical robot.

Skills Utilized: C, PIC/dsPIC, MARG sensor fusion, C#/.NET, Python, and Git.

INTELLIGENT GREEN PRODUCTS | Firmware Development Engineer, Contract

February 2018 – January 2020 | Cincinnati, OH

- Implemented Bluetooth Low Energy communications stack in IoT device to enable Android and iOS connectivity.
- Integrated real time sensor inputs and user settings to develop flow control scheme for smart shower system.
- Created web-based engineering interface that enabled testing and troubleshooting of devices by engineering team.

Skills Utilized: C, dsPIC, Bluetooth Low Energy, JavaScript, React, HTML/CSS, and Git.

BLUELINE DRAFTING | General Engineering Services, Contract

May 2015 – Feb 2018 | Cincinnati, OH

- Created suite of drafting automation tools that significantly reduced time spent by employees in the field.
- Developed software applications to increase standardization and quality control.
- Drafted architectural and engineering building design documents.

Skills Utilized: C#/.NET, AutoCAD LISP, AutoCAD, and Git.

LANGUAGES AND TECHNOLOGIES

- **Languages:** Fluent in C and Python; Competent in C++, C#, JavaScript, and HTML/CSS; Familiar with Rust and PHP.
- **Tools/Platforms:** ARM Cortex-M, PIC/dsPIC, Linux, Zephyr RTOS, Docker, Git, GCC/Clang, Protobuf, Flask, Django, and React.

EDUCATION

CINCINNATI STATE TECHNICAL AND COMMUNITY COLLEGE | Graduated July 2015

A.A.S. in Mechanical Engineering Technology | **GPA:** 3.96

- **Core Coursework:** Machine Design, Kinematics, Applied Thermodynamics, Statics and Strength of Materials.