

Gabriel Dougherty

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Work Experience

Lead Software Engineer

July 2021– Present

Software Engineer II

December 2019 – July 2021

Software Engineer I

May 2019 – December 2019

Cadence Design Systems

- Architect a cross-language black box optimization framework and help integrate it into Cadence products.
- Create high level network routines in C++, Python and Java to communicate optimization constraints, points, and objectives.
- Advocate and implement a standardized Git workflow and Continuous Build System to streamline the team development process.
- Collaborate with teammates on design of PostgreSQL schema and Java Spring REST API to track optimization workflow details.
- Implement user interface improvements in a Genetic Algorithm optimization cockpit in C++ and Qt.
- Preprocess waveforms and compare for similarity in Python and NumPy.

Software Engineering Intern

May 2018 – August 2018

Acutec Precision Aerospace

- Developed a C# application to automate documentation for every finished part produced.
- Reduced documentation generation time by 90% when compared to manual documentation.
- Expanded Microsoft SQL Server database schema to adapt to changing business requirements.
- Created data analytics tools to detect anomalous machined part information.

Network Engineering Intern

June 2017 - July 2017

Erie First Christian Academy

- Performed a complete overhaul of network infrastructure for international student dormitories.
- Implemented web filtering, network antivirus, and traffic shaping in a hybrid network setting.

Skills

- **Languages:** C++, SQL, Python, Java, Bash, Cadence SKILL
- **Frameworks/Libraries:** Google Protobuf, Java Spring Boot, C++ Boost, Qt, ZeroMQ, NumPy
- **Software:** Git, PostgreSQL, Linux, Qt Creator, GNU Make, Cmake, Maven

Education

Edinboro University of Pennsylvania

- B.S., Computer Science

Graduation: May 2019