# Frank Lee

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# **EDUCATION**

Carnegie Mellon University

Pittsburgh, Pennsylvania

**Graduation date: May 2020** 

M.S. in Electrical and Computer Engineering with Concentration in Embedded Systems

GPA **3.6/4.0** 

University of California, Davis

Davis, California

**Graduation date: June 2019** 

B.S. in Electrical Engineering with Concentration in Analog and Digital Circuits, GPA 3.4/4.0

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## **WORK EXPERIENCE**

# **Cerebras Systems**

### Sunnyvale, California

Jan 2021 – Present

Embedded Software Engineer

- Working with the system hardware team to develop the embedded software to manage a server system
- Developing real time embedded code for ARM Cortex-M (STM32)
- Providing support to communicate with IO-link sensors by reading the spec sheet and writing the code for all the layers of communication from bare metal to microcontroller sensor monitor thread
- Writing C++ code for a Linux daemon that manages the power sequencing of different boards in the system using gRPC and ZeroMQ
- Administered the success of an intern as a mentor by delegating interesting while impactful tasks, coordinating meetings between relevant parties, and checking in regularly to prevent burnouts
- Converted an overly complex Python code into easily readable C++ code while separating testing and production code
- Designed user facing CLI and APIs to be used by the system administrator to interact with the server

Vinzcam

## Pittsburgh, Pennsylvania

May 2020 - July 2020

Embedded Systems Engineer Intern / Hardware and Firmware lead (Athletech group)

- Created a proof-of-concept board that can measure biophysical traits in real-time to monitor an athlete's performance
- Developed a custom PCB with a microcontroller, battery circuits, and 5~6 sensors using Autodesk Eagle while meeting high level functional requirements
- Designed the firmware for an ARM-based microcontroller by configuring the pins to match the required set of peripherals and writing industry-standard embedded C using a modern Integrated Development Environment (IDE)

**Texas Instruments** 

## Santa Clara, California

**June 2019 – August 2019** 

Digital Design Engineer Intern (High Speed Signal Conditioning group)

- Designed and verified a Verilog RTL code to be integrated with TI's new PCIe Retimer chip
- Discussed with other designers to integrate more features that will be useful to the chip and conducted an in-depth research to analyze chip architecture tradeoffs to ensure spec compliance and superior performance at a competitive cost

**RMI Institute** 

## Davis, California

**June 2018 – September 2018** 

Electrical Engineering Intern

• Developed an embedded system design that can convert industrial pressure sensors' digital signal into a data server with visual displays

OSIsofi

### San Leandro, California

**June 2017 – September 2017** 

Customer Support Engineer Intern

- Created a system that monitors and visualizes a bus's engine and GPS data by implementing connections between different devices in an unprecedented manner while preventing many accidents during the one year of operation
- Invited to OSIsoft PI World Conference 2018 to present project at the Academic Symposium (Link to the video)

#### **SKILLS**

- Programming: C/C++, Embedded C, Python, Linux
- Communication Protocols: I2C, SPI, UART, IO-link
- Software Applications: Git, Jira, VS Code
- Characteristics: Fast Learner, Punctual, Determined, Curious, Organized, Helpful, Patient