

Inga Wei

ingawei@gmail.com

512-771-6529

383 King Street

San Francisco, CA 94158

EDUCATION

Northeastern University

B.S. in **Computer Engineering**

(May 2020)

Minor in **Graphic Design**

GPA **3.844**

Dean's List

Honors Scholar

Extracurriculars

Society of Women Engineers

Enabling Engineering

Engineers Without Borders

Songwriting Club

COURSEWORK

Embedded Design Enabling

Robotics • Discrete Structures •

Circuits/Signals: Biomedical

Applications • Digital

Design/Computer Organization •

Electronics • Networks • Object

Oriented Design • Robotics •

Probability and Statistics •

Advanced Engineering Algorithms

• Computer Systems

SKILLS

Altium • Verilog • x86 Assembly

• Simulink • PSpice

C++ • Python • Java • Arduino

• MATLAB • HTML • CSS •

TCL

EMPLOYMENT

Cruise Automation

Aug. 2020 - Present

San Francisco, CA

Electrical Engineer

- Designed test boards (schematic capture and layout) in Altium for FPGA evaluation, involving CAN, I2C, SPI, LVDS, and MIPI signals
- Developed and implemented daughtercard identification system using I2C IO expander for system with multiple potential daughtercards. Allows embedded engineers to identify which daughtercards are attached to main system automatically
- Spearheaded and executed data storage and processing system in Google Cloud Platform for team, allowing cheaper storage and faster processing (from 30 minutes to 16 seconds) of multi-gigabyte files. Wrote Allan Variance and other processing scripts in SQL (BigQuery) for IMU evaluation
- EE Lead for IMU module, worked closely with vendor to debug schematic issues and meet Cruise's performance and cost specifications

Cruise Automation

July - Dec. 2019

San Francisco, CA

Hardware R&D Engineer

- Configured FPGA IO and PS in Vivado for in-car prototypes involving SPI, UART, I2C, and SGMII interfaces
- Developed TCL code to rebuild Vivado FPGA configurations in embedded Linux environment
- Prototyped developmental hardware and software in Arduino to interface with IMU for data collection
- Wrote SPI-like bus driver to control galvo laser for LIDAR development

Hasbro Studios

Jan - June 2018

Burbank, CA

Electrical Engineer

- Designed, built, and soldered electronic prototypes for upcoming products involving use of actuators, motors, IR detectors, electret microphones, hall sensors, photoresistors, etc.
- Developed code to be utilized in brand product with PCBs from various vendors, using C and Assembly based code
- Used Python to automate WAV file conversion for company use
- Built and programmed POV LED fan to display any 20x20 bitmap using Arduino, MATLAB, and Python
- Worked remotely with team of 6 to fully develop a brand product from conception to market

ENGINEERING PROJECTS

PCB Review in Virtual Reality

Jan - Apr. 2020

Northeastern Capstone

- Developed system to view KiCAD PCBs in virtual reality with team of 6 using Godot
- Won first place prize amongst Computer/Electrical Engineering Department for Northeastern Capstone
- Link to final presentation: <https://www.youtube.com/watch?v=VWYOo4ThcNk>

One-Handed Guitar

Spring 17 - Fall 2018

Enabling Engineering

- Collaborated with a team of 6 to design and build a contraption that compresses guitar strings at will to mimic the mechanical action of fingering chords
- Utilized Arduino to allow the mechanism to play pre-specified chords with use of foot pedal
- Built for a teen with cerebral palsy who has limited mobility of his left side