

# ROBERT JIANG

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## EDUCATION

### University of California San Diego

B.S., Computer Science | Regents Scholar, Provost's Honors

09.2020 → 03.2023

3.85 / 4.00

## RELEVANT EXPERIENCE

### Software Engineering Intern

06.2022 → Present

Werfen

San Diego, CA

- × Implemented and tested multiple new features or modifications for a medical device including designing an electronic system verification test suite and extending the telemetry and serial interfaces.
- × Merged over a dozen commits and made 6,000+ code contributions via the use of object-oriented programming and design patterns.
- × Created and executed test cases for 8+ bug fixes and/or changes.
- × Reviewed over a dozen changes and updated multiple specification documents accordingly to reflect code, design, and workflow changes, case studies, and development logs.

### Electrical Engineering Intern

06.2019 → 08.2019

Tubis Technology

Pasadena, CA

- × Designed an evaluation PCB in *Altium* by schematic entry: designed the PCB layer stackup, selected and placed components, inserted vias, routed traces, and added labels and identifiers.
- × Implemented an *Arduino* program and *Python* script to visually represent bytes from an input stream on an LED circuit.

## PRIMARY PROJECTS

### Dynamic Display Settings Switcher (DDSS) | *Python*

- × Created a system tray application for Windows laptops that switches display settings (screen resolution, refresh rate, and brightness) when connecting or disconnecting from power.
- × Implemented an easy one-click resolution and refresh rate switch feature and a configuration file for storing and changing custom user-defined display setting profiles.
- × Wrote 500+ lines of code and utilized a variety of Python libraries including *pywin32*, *psutil*, *wmi*, *threading*, and *pystray*.

### Feather | *Java*, *Android*, *Google Nearby Messages API*, *Room API*, *Git* & *ZenHub*

- × Developed an *Android* social networking app in *Java* that recommends students to each other based upon specific course criteria (# of shared courses, recency of shared courses, etc.).
- × Implemented and iteratively tested multiple features including Bluetooth message sending and receiving via *Google Nearby Messages API*, data storage and persistence via *Room API*, sorting/filtering/matching algorithms, and UI view handling via design patterns and object-oriented programming.
- × Merged 70+ commits and made 25,000+ code contributions.

### JARchitecture | *SystemVerilog*, *Python*, *Java*, *ModelSim*, *Quartus Prime*

- × Developed an accumulator and load-store hybrid computer architecture in *SystemVerilog* with a *Python* assembler and a MIPS-esque ISA.
- × Implemented 3 programs/algorithms in *JARchitecture* instructions then verified program correctness using *Java* to demonstrate architecture usage and functionality.
- × Merged 15+ commits and made just shy of 10,000 code contributions.

## TECHNICAL SKILLS

**Languages:** C/C++, Python, Java, Haskell, VHDL, Verilog/SystemVerilog, ARM/MIPS/X86

**Frameworks:** JUnit, Robolectric, Espresso

**Developer Tools:** Android Studio, STM32Cube, Arduino, ModelSim, Quartus Prime, Git

**Libraries & APIs:** NumPy, Google Nearby Messages, Room

**Techniques:** Agile Development, Design Patterns, Object-Oriented Design