Wesley Chaffin
San Diego, CA
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Objective

Electrical engineering student graduating soon. Looking to work on interesting technology, particularly for audio and loves variety.

Education

Univ of California San Diego, **Graduating June 2018**. Electrical Engineering Major, Music Minor **GPA: 3.0**

Experience

June 2017 - Present **Research Intern Sonic Arts at Qualcomm Institute** UCSD - 3d Audio/Music DSP Lab

- Support customers on implementing 3d audio for next-generation gaming consoles
- Development of audio spatializer plugins for Unity game engine in C# and C++
- Development of motion-tracking device in Arduino and Embedded C/C++

June 2017 - Present **Engineering Intern Meshcandy Inc.** Santa Ana, CA - Venture-funded medical IOT startup

- Full stack web development using Parse Platform, NodeJS (Express), and JQuery
- Testing automation in Python

June 2016 - Aug. 2016 **Engineering Intern, CloudLeaf Inc.** Milpitas, CA - Venture-funded Industrial IoT startup

- Designed, developed and tested QA scripts for Bluetooth Low-Energy (BLE) Industrial IoT solution
    - Developed python scripts for characterizing bugs in cloud-based data analysis/storage platform and embedded system
    - Compiled data from logfiles and a REST API and presented reports to other engineers
- Co-Authored detailed deployment and training guide now in the hands of customers
- Assisted with RF testing and characterization of antenna for small bluetooth IoT device
- Managed and delegated responsibility to a second, less-experienced intern

June 2015 - Sept. 2015 **Engineering Intern, Kespry Inc.** Menlo Park, CA - Commercial drone startup

- Designed and built test peripherals for drones that collected data to be used in computer simulations for QA of newly manufactured drones: developed PCB - circuit design, board layout, solder & mount devices
- Designed, CADed and built 3D printed parts for testing drones

Skills

- Analog circuit design: common filter and amplifier topologies, high speed circuit design
- Digital design: Implementing circuits with SystemVerilog, Arduino, I^2C, UART
- Familiarity with common lab tools like oscilloscopes, power supplies, function generators, frequency analyzers, logic analyzers
- Software development in Python, C, C++, Java, Assembly, JavaScript; Design and use of data structures eg. linked lists, hash tables, binary trees
- Digital filter design and implementation in software and FPGA (SystemVerilog)
- Unix/Linux with common shell tools such as git, make, grep, shell scripting, etc.
- Use of electronic design tools like LT SPICE, Eagle, and CircuitMaker (free version of Altium).
- Use of Matlab for linear system analysis for stability and performance, digital and analog filter design

Other Skills / Extracurriculars: President, UCSD DJ & Vinylphiles Club - perform at high-profile events for sold out crowds of >1000 people, leading and organizing a diverse team to throw music festivals & events

Basic (1st grade) proficiency in Chinese (Mandarin), written and spoken