Eric Chang

ericchangcs.com • eric.chang.cs@gmail.com
linkedin.com/in/e4chang • github.com/e4chang

Education

UC San Diego
BS Computer Engineering
Sep 13 – Mar 17
GPA: 3.42

Skills

Languages
C • C++ • Java • HIDL
Python • JavaScript • SQL

Frameworks
Android • Spring • Bootstrap

Experience

Qualcomm — San Diego, CA
Software Engineer — Jul 17 – Current

- Working with the Android Connectivity team on data protocol stack development in Qualcomm's Connectivity Engine (CNE) and Radio Interface Layer (RIL) modules
- Extensive use of design patterns and principles to create robust solutions for event driven systems in a multi-process context
- Supported the launch of one of the world's first 5G phones by introducing the DataConnection HAL, an API to receive real-time notifications about 5G resource control on modular devices. This requires complex interprocess communication between multiple processors and radios
- End to end delivery of an API for synchronizing SSL Certificates on Qualcomm's proprietary services with Google's servers. This is used to secure data over GPS, Wi-Fi calling, and any modem SSL
- Implemented an open-source API for setting data preference on dual-SIM phones. Android's Settings app uses this to let the user seamlessly pick which SIM to use data on

Software Engineering Intern — Jun 16 – Sep 16

- Enabled Visual Studio compilation for the RF card for unit testing, reducing build overhead by 90
- Wrote a unit test suite for RF card bootup on 15 operators, deployed to Jenkins CI

Calit2 — La Jolla, CA
Research Intern — Apr 16 – Jun 16

- Participated in a Gates Foundation project led by UCSD Medical School professors to provide a reliable form of identification for healthcare in third world countries
- Implemented autofocus and dynamic resolution control on a liquid lens camera for Arduino

Kaiser Permanente — Pasadena, CA
Software Development Intern — Jun 15 – Nov 15

- Implemented a pipeline of batch processes for consolidating, validating, and transmitting sensitive membership data from multiple sources into 7 million IRS 1095B tax forms
- Contributed to back-end development of a web app in Spring Framework used for actuarial and insurance purposes

Space and Naval Warfare Systems Command — San Diego, CA
Research Intern — Jun 14 – Aug 14

- Implemented a CSMA based MAC protocol in C++ for decentralized underwater networks
- Integrated a TCP/IP routing algorithm with different MAC protocols and simulated results on MATLAB