Eric Chang

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Education

UC San Diego

BS Computer Engineering
Sep 13 – Mar 17
GPA: 3.42

Skills

Languages

C • C++17 • Java • PHP
Python • JavaScript • SQL

Tools

ADB • GDB • Git • Wireshark

Frameworks

Android • Bootstrap • Laravel
Google Test • Node.js • Spring

Experience

Qualcomm — San Diego, CA

Senior Software Engineer — Nov 19 – Current
Software Engineer — Jul 17 – Nov 19

- Delivered advanced networking, connectivity, and telephony features for Android end to end, from design to commercialization on millions of devices.
- Designed and developed extensively on multi-threaded, event-driven architectures using message-based and inter-process communication (IPC) in modern C++ and Java.
- Developed relationships across various teams, including platform, testing, and integration. Coordinated the respective POCs and followed up actively to deliver large features in a timely manner.
- Contributed to a large scale re-architecture of the Radio Interface Layer (RIL) daemon by spearheading the use of modern design principles to break down highly complex functionality such as mobile data establishment, WiFi and emergency calling, and multi-SIM mode.
- Led the effort for enabling unit testing and CI on RIL data module, proposing an architecture which leveraged existing frameworks while extending the capabilities for mobile data related use cases.
- Supported the launch of the first 5G phones by delivering critical radio resource control and 5G status bar icon features just months before launch.
- Assisted with the development of internal Android apps used widely by testing teams to verify Android network connectivity.
- Developed an Android system service that retrieves SSL certificates over IPC and is currently used for establishing SSL on GPS, WiFi calling, and other modem services on Snapdragon devices.

Software Engineering Intern - RF Software — Jun 16 – Sep 16

- Integrated the RF card with an off-target unit test framework, increasing productivity for RF device engineers by reducing their build times from 40 minutes down to 5.
- Developed a unit test suite for testing RF card bootup on 15 operators, which was later deployed on Jenkins CI.

Qualcomm Institute (formerly Calit2) — La Jolla, CA

Research Intern — Apr 16 – Jun 16

- Participated in a Gates Foundation project led by UCSD Medical School professors seeking to provide a reliable form of identification for healthcare in third world countries.
- Implemented autofocus and dynamic resolution control in Python for an embedded Arduino camera used for fingerprint identification on infants.

Kaiser Permanente — Pasadena, CA

Software Development Intern — Jun 15 – Nov 15

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

Space and Naval Warfare Systems Command — San Diego, CA

Research Intern — Jun 14 – Aug 14

- Implemented Seaweb, a CSMA-based MAC protocol for decentralized underwater networks
- Utilized NS-2 and MATLAB to simulate a machine learning based IP routing protocol together with Seaweb