

Employment

Senior Software Engineer **Netflix Inc., Los Gatos CA** **Jul 17 – Current****Engineering Squad Lead**

- Leading a team of 5 engineers, responsible for full lifecycle execution of key cross functional projects in the areas of device software (with latest Netflix NRDP SDK) and Infrastructure tooling
- Part of the Parter Ecosystem group, which works closely with various partners (SOC, ODM etc.) to collaborate on future roadmaps and integrate Netflix SDK into their platforms
- Developed an internal reference device based on AmLogic SoC with full Netflix client app features, this is used extensively (over 100 users and 1000 devices) internally for both new feature vetting and test
- Designed spec for Netflix Automation Ready Devices, a set of binaries and scripts which allows easier integration of devices into test infrastructure. Integrated this into internal reference devices as well as distributed externally
- Lead developer for the build and infrastructure tooling efforts, responsible for crafting and executing on the new strategy. Created CI automation workflow (using Jenkins, Spinnaker), dockerized builds for various device types, and Cloud services to setup on device testing on variety of reference and production devices. This resulted in faster release cycles for Netflix SDK

Senior Software Engineer **Pearl Auto, Scotts Valley CA** **Dec 14 – Jun 17**

- Early employee in Software team, worked on Pearl RearVision, the wireless backup camera and alert system
- Primary responsible for Linux system bring up, Power management, BTLE architecture, MFi software support and several system services running under Linux & RTOS
- Implemented Apache Thrift RPC system on an ARM embedded device allowing for a unified RPC system across the whole stack consisting of cloud services, mobile app (iOS, Android) and two ARM embedded devices
- Led efforts around CAN bus software development for the OBD car adapter
- Brought up prototype platforms using Raspberry Pi and Odroid XU4 for early proof of concept system

Software Engineer **Apple Inc., Cupertino CA** **Jan 11 – Dec 14****iOS Motion and Location Group**

- Developed a set of new CoreMotion framework API for distance estimation and flights on iOS 8 <https://developer.apple.com/documentation/coremotion/cmpedometer>
- Prototyped machine learning regression algorithm on a memory-constrained M7 co-processor
- Innovated Pedometer calibration techniques to reduce error (by 10%), two patents for this work

Special Projects Group, Apple Watch

- Founding member of the software team, worked on implementing fitness algorithm using heart rate sensor, accelerometer to compute total calorie consumption, also developed user data collections apps

iPod Software Engineering

- Led firmware efforts for development of new Lightning connector and Lightning to 30 pin adaptor
- Developed a new interface on iPod similar to USB HID to support new connector and accessories
- Worked with MFi and QA teams to ensure compatibility of new adaptor with existing accessories
- Interviewed over hundreds of candidate (phone screen, on site interviews) for positions in the group

Graduate Intern **Cisco Systems, San Jose CA** **May – Aug 10**

- Developed new API's for managing Lock free Trace buffers and memory tracking through named Malloc extensions; deployed in production software.

System Software Engineer **ST-Ericsson, Bangalore India** **Oct 07 – Jul 09**

- Module lead for Video Telephony, Call modules in the application stack for 3G reference platform

- Worked with OEM based in China and South Korea to integrate this platform into their phones

Education

Pittsburgh, PA **Carnegie Mellon University** **Dec 10**

- M.S. in Electrical and Computer Engineering
- Coursework and research focussed on Embedded Real time systems and broader Computer Engineering area

Trichy, India **National Institute of Technology** **May 07**

- B.Tech. in Instrumentation and Control Engineering

Projects

- **ScanIt - Easy way to add titles to Netflix Queue** (Winter 18). Created an iOS app to capture images of Netflix titles and easily add them to the queue. This was voted best project in UI category at the Netflix Hackday event.
- **Identifying tags from millions of text question** (Fall 13). Performed data analysis on 6 million Stack Overflow questions and built a Machine learning classifier for each of the top 500 tags. Report at <http://goo.gl/3kb4aN>
- **x86 Kernel from scratch** (Spring 10). Wrote a UNIX like kernel with Multithreading, Preemptive Multitasking

Languages and Technologies

- C++, C, Python, Node.js, bash, Objective-C, assembly (x86, arm)
- Source control (git, svn), Xcode, gdb, Jenkins, Spinnaker, docker, buildroot