

SRIRAM VAMSI ILAPAKURTHY

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EDUCATION

University of California, Irvine

Dec 2017

M.S. in Computer Engineering GPA: 3.9/4

- **Relevant Coursework:** Design and Analysis of Algorithms, Principles of Data Management, Information Storage, Information Retrieval, , Advanced System Software, Computer Architecture

BITS Pilani.

July 2013

B.E. in Electronics and Communications Engineering GPA: 8.96/10

TECHNICAL SKILLS

C/C++ (Proficient), Java, Tcl, Git, Html, Javascript, CSS, SQL

EXPERIENCE

Associate Software Developer, Maxim Integrated

Jan 2014 – July 2016 (2.5 years)

System Software for Electricity Meters

- Designed and developed a real-time OS based software for one of the world's most accurate energy meters in C.
- Enabled easy application access of peripherals by writing clear and simple device driver APIs to access data.
- Participated in the requirement analysis, created the SRS, SDS and user guides, and held code reviews as part of the Software Quality Processes.

Secure Bootloader

- Created a bootloader which uses AES encryption for securely authenticating and updating the system software.

Command Language

- Implemented a command-response protocol between a host PC and a USB device for querying and file transfers.

Engineering Co-op, Analog Devices

Jan 2013 – June 2013 (6 months)

Code Performance Improvement

- Achieved a performance improvement of 4x over existing implementations by using code optimizations, compiler optimizations, and hardware level enhancements.
- Created user libraries for signal processing algorithms (FFT, IIR, and FIR) and fixed-point arithmetic operations.

Engineering Intern, Indian Army

May 2012 – July 2012 (2 months)

- Established a wireless communication link between weapons and a central server in a weapons firing simulator. This eliminated the need for cables to be connected to the weapon and made it portable.

PROJECTS

- **DBMS Implementation** (2016). Developed an efficient DBMS from scratch in C/C++ by implementing the different layers: file manager, relational manager, indexer and query processor. Optimized the performance of search queries on a user table by creating a B+ tree based index for it.
- **Inventory Management System** (2014). Customized and improved the UI of an open source software, Partkeepr, for storing and tracking discrete electronic components.
- **Autonomous Drone** (2012). Built a semi-autonomous Quadrotor which is capable of conducting surveillance by navigating through a preconfigured GPS path. Initially, a Kalman filter determines the pitch, yaw and roll of the drone by analyzing the inputs from the onboard sensors and then a PID control logic drives it in a specific path.
- **Robotics** (2009-present). Worked on a couple of extracurricular robotics projects: ball follower bot, bipedal bot, line follower ball and beam balancer and LED ping pong.

PRESENTATIONS

- **Paper Presentation (2012):** Presented a paper titled "A Framework for Smart Homes for Elderly People Using LabVIEW" at the national conference on communication networks, ACNCN-2012.