

# HARI PRASHANTH RANGANATHAN

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## OBJECTIVE

Available: Summer, Fall 2016

A computer science graduate student seeking an internship/ co-op in the field of Software Development, wherein I can hone my technical skills, innovate and contribute to the betterment of people's lives.

## EDUCATION

**Rochester Institute of Technology, NY-14623, USA**

CGPA: **3.44/4**

*Master of Science in Computer Science*

Anticipated Dec 2016

**Relevant Courses:** Foundations of Algorithms, Foundation of CS Theory, Compiler Construction, Foundation of Computer Networks, Distributed Systems, Pervasive and Mobile Systems, Foundations of Cryptography, Secure Coding

**Kumaraguru College of Technology, TN-641049, India**

CGPA: **8.12/10**

*Bachelor of Engineering in Electronics and Communication Engineering*

April 2014

## SKILLS

### LANGUAGES

Java, C++, C, SML, Embedded C, SQL, HTML, Swift

### OPERATING SYSTEMS

Windows, Linux

### TOOLS

LaTeX, Android Studio, Xcode, Eclipse, IntelliJ

### OTHERS

Strong problem solving and analytical skills, a good team leader as well as an enthusiastic team player, excellent oral and written communication skills

## PROJECTS

**"Intelligent Blind Control System"** – As a team developed an automated system which adjusts window blinds based on the particular room temperature and ambient light. An Android application was developed which displays all the information with features to change the default settings. Raspberry pi was the central processing unit.

**"Web Server"** - Developed a web server exactly as stated in RFC2616 and tested it with real time client (web browser), Google Chrome. A cache server was developed which acts as a middleware between server and client.

**"Sorting One Million Random Character+Number data using Distributed Systems"** – As a team developed a distributed computation framework (a raspberry pi network of master - slaves) to sort the given large set of data. Features such as fault- tolerance, load balancing and scalability were added.

**"RIP"** - Implemented a distance-vector protocol called **Routing Information Protocol (RIP V2)**. In order to prevent the count-to-infinity problem, the split horizon with poisoned reverse mechanism was implemented.

**"Chord"** – Developed a doubly linked distributed hash table in which the main features are file inserting and retrieving algorithm, node join and leave protocols as well as displaying peer information.

**"Compiler Construction"** – Implementing\* a small functional programming language called LangF (a sub-language of SML). A compiler is being constructed step by step which includes scanner, parser, type checker, optimizer and code generator.

**"Microcontroller powered Event Registration System"** – Developed a real time portable handy device that can be used for registration of participants in any event. Embedded C was used for programming pic microcontroller.

## ACTIVITIES

Organizer and active member of **Kiruthaya Foundation**, an association started by our under graduate class students for the **welfare of education of poor students** in Tamil Nadu, India.

Self-volunteered to help the students of **Udhavum Karangal - Center for Humane Services**, Coimbatore, Tamil Nadu, India. I taught them Mathematics, Science and some life hacks!