

RISHIKANTH CHANDRASEKARAN

Embedded programmer & IoT Enthusiast

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📍 San Diego

SCHOLASTIC ACHIEVEMENTS 🏆

**BEST USE OF
NEXMO & AWS**
HACKRU 2017

BEST POSTER
BUILDSYS'16 | STANFORD

**BEST DEMO
RUNNER UP**
SENSYS'16 | STANFORD

TOP 10
MLH PRIME

**GOOGLE IOT RESEARCH
PILOT AWARD**
2016

**BEST DEVELOPER TOOL
BY GITHUB**
HACKRU 2016

1ST PLACE
MIT IOT HACKATHON 2014

BEST POSTER
MIT IOT 2014

EDUCATION 🎓

*University of California -
San Diego*

PhD Computer Science
Sept 2017 - Present

Columbia University

MS Computer Engineering
Jan 2016 - Jun 2017

Anna University

BE Electrical & Electronics
Aug 2011 - Jun 2015

SKILLS ⚙️

Programming

Over 10000 lines:
C | Embedded C

Over 5000 lines:
Python | Shell | System Verilog

Hardware

ARM | Atmel Family | Pi
ESP8266 | Altera |
ASIC Design

Engineering

SYSTEMS: Kernel programming |
Firmware Dev | embedded
systems
BACKEND: Flask
INFRASTRUCTURE: AWS | Azure
DATABASE: MongoDB

INTERESTS 📖



EXPERIENCE 📁

System Energy Efficiency Lab

Graduate Research Assistant // Sep '17 - Present

> Advised by Prof. Tajana Simunic Rosing. Designing and implementing assistive technologies using AI & embedded systems for elderly care

Intelligent & Connected Systems Lab

Graduate Research Assistant // Jan '16 - Jun '17

- > Awarded the **Google IoT Research Pilot Award** for proposal on wearable systems using conductive fabric for comfort sensing
- > Research produced **4 publications** in leading conferences with **Best Poster** and **Best Demo Runner up** awards
- > Built a pedestrian safe headphone which analyzes ambient sounds to warn users of dangers from approaching cars
- > Implemented an energy footprinting system to provide occupants with personalized actionable real-time insights into energy usage

Solarillion Foundation

Undergraduate Research Assistant // Jan '16 - Jun '17

- > Implemented a 10\$ Intelligent prepaid Energy Meter, the findings were **published** and won **Best Poster Award** at **MIT IoT**
- > Developed a 5\$ Intelligent Gesture Recognition glove to translate sign language to text. **Published** at **IEEE GHTC**

TEACHING 📝

Artificial Intelligence

Managed 10 other TAs for a class of 300 students, designed assignments, solutions. Developed shell scripts to automate grading.

PROJECTS 💡

**Adaptive Noise Cancellation on
FPGA**
Architected the RTL design from scratch.

Adversarial AI for 2048
Implemented an AI to win the 2048 game.

Dynamic Pricing for Retail
Built a backend for dynamic pricing of products, using Reinforcement Learning from purchase history & sales statistics.

Operating Systems
Implemented scheduler, file system, system calls on android kernel. Installed & tested it on a Huawei phone.