

539 Arroyo Seco
Santa Cruz
CA 95060

RUBEN K. LOPEZ

people.ucsc.edu/~rklopez
rklopez@ucsc.edu | 707-540-4836



EDUCATION

UNIVERSITY OF CALIFORNIA, SANTA CRUZ

BS in Computer Engineering
Concentration in Networks
Graduated June 2015
Jack Baskin School of Engineering
Major GPA: 3.3 / 4.0

UNIVERSITY OF COPENHAGEN

Semester Study Abroad
Aug 2013 - Dec 2013 | Denmark
Department of Computer Science

SKILLS

EMBEDDED SYSTEMS

IoT, Microcontrollers, GPIO,
UART, UNIX/Linux, Raspberry Pi,
Wi-Fi, Bluetooth Low Energy,
Webpages, Databases

PROGRAMMING

Proficient
C/C++, C#, Python, Java,
SQL, HTML, Assembly
Familiar
PHP, JavaScript, XML

COURSEWORK

CORE COURSES

Microprocessor System Design
Computer Systems & Assembly
Data Structures
Algorithms & Abstract Data Types
Logic Design
Computer Architecture
Electronic Circuits
Statics, Dynamics & Biomechanics
Technical Writing

NETWORKS COURSES

Network Administration
Network Programming
Operating Systems
Cisco Networking Academy

EXPERIENCE

Cisco Systems | Support and Content Development Intern

Jun 2014 – Present | Santa Cruz, CA
Interns implement VPNs and other use-case scenarios on Cisco Small Business routers, switches, and wireless access points, and publish helpful customer-facing videos and articles for the online support community.

Corporate-Sponsored Senior Design Project | Software Engineer

Jan 2015 – May 2015 | Santa Cruz, CA

- Industrial *Internet of Things* project sponsored by Echelon Corporation.
- Worked with a team of 5 (computer engineers + electrical engineers).
- Developed Python and C software for M2M communication (BLE/Wi-Fi).
- Developed webpages for monitoring data with PHP/HTML and SQL.

Danish Academy of Digital Interactive Entertainment | Programmer

Sep 2013 – Dec 2013 | Copenhagen, Denmark
Collaborated with a production team of 15 students (made-up of managers, directors, artists, and programmers) in an environment that closely simulated a production in industry (scrum, agile project development, etc.)

Sybo Games | Research Intern

Oct 2013 – Nov 2013 | Copenhagen, Denmark

- Given work-in-progress-code and assets of a new game.
- Accomplished C# programming tasks for the project (using Unity3D).

PROJECTS

Supermarket IoT: Smart Cart | Industrial Internet of Things

Jan 2015 – May 2015 | Santa Cruz, CA
Internet-connected, self-checkout enabled shopping cart with various sensors capable of item and theft detection, indoor location tracking, and building automation features (e.g. lighting control and location-based events).

Microcontroller System Design | Connect-4 Game via Wi-Fi

Dec 2014 | Santa Cruz, CA

- Built a cross-platform multiplayer game on a PSoC Microcontroller.
- Interfaced an LED display, SD card, and Wi-Fi Module to GPIO.
- Developed C software for gameplay and UART communication.

Proxy Server | UNIX Socket Programming (TCP/IP)

May 2014 | Santa Cruz, CA
Made a proxy server in C that parses incoming web browser HTTP requests and either forwards or filters them based on an access control list.

Software-Defined Network | Network Administration

May 2014 | Santa Cruz, CA
Simulated an SDN with an *OpenFlow* network emulator (*Mininet*) to observe how an *OpenFlow* Switch contacts its Controller for forwarding instructions.