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 Expected June 2015 Jack Baskin School of Engineering Major GPA: 3.3 / 4.0

UNIVERSITY OF COPENHAGEN

Semester Study Abroad Aua 2013 - Dec 2013 I Denmark Department of Computer Science



EMBEDDED SYSTEMS

IoT, microcontrollers, Linux, Raspberry Pi, GPIO, Wi-Fi, NFC, Bluetooth Low Energy, webpages, UX design

PROGRAMMING

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

N 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 | Tech Support 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 new how-to content 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).

T PROJECTS

Smart Cart | Industrial I.o.T. Sponsored by Echelon Corp.

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 and Wi-Fi Module to GPIO.
- Developed C software for gameplay and UART communication.

Proxy Server | Socket Programming (TCP/IP)

May 2014 | Santa Cruz, CA

Made a simple proxy server in C that parses incoming HTTP requests and forwards them to their destination if allowed by the access control mechanism.

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.