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# Octavio Lopez

## EDUCATION

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University of California Santa Barbara  
Bachelor of Science in Electrical Engineering  
Expected to Graduate Fall 2017  
Gates Millennium Scholar 2013

## CAMPUS INVOLVEMENT

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### Secretary of UCSB International Health Collective

- Organize meeting times, communicates announcements to all members
- Go to Mexico once a month to build technologies for a village to improve their lives, such as a more efficient stove and solar powered lighting

### Member of the Institute of Electrical and Electronics Engineers

- Volunteered to teach High Schoolers Electronics for MESA day
- Created projects with them, such as a Hall Effect Electromagnet

### Member of Los Ingenieros Organization

- Mentored freshmen in the Engineering department
- Help tutor in different engineering classes

## RELEVANT SKILLS

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- Coding experience in JAVA, MATLAB, C/C++, Python, Verilog, Open CV, Mathematica
- Microcontrollers, Raspberry pi, FPGA
- Bilingual in English and Spanish (proficient in French)
- Proficient in Windows, Apple OS, and Linux

## ENGINEERING PROJECTS

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### Car Security System

September 2016

- Designing a 360-degree security system for cars
- Interdisciplinary project team with a ME and a physics major
- Skills Required: Raspberry pi manipulation, multiple camera integration, power electronics, embedded systems design

### Power Lace Shoe Project

June 2016

- Created and designed a unique concept for self-tightening shoelaces
- Worked alongside a professional engineering mentor
- Skills Required: Developing blueprints, microcontroller manipulation, ability to work with motors and circuitry

### Hall Effect Electromagnet

March 2015

- Designed and created a device that suspended a ball with a magnet in the air at a fixed height.
- Worked in a team of 3 students under the supervision of engineering mentors.
- Skills Required: Arduino Programming, Implementation of different circuitry elements.

## WORK EXPERIENCE

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### Carma Security Systems

July 2016

#### *Electrical Engineer*

- In charge of choosing the hardware for the prototype
- Managing the power for the prototype
- Programming the system to make it robust

### Migrant Program STEM Camp

June 2015

#### *Program Leader*

- Coordinated different events for underprivileged high school students
- Stayed with the students' full time as a Residential Assistance