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## OBJECTIVE

I strive to obtain an internship position in a high quality engineering environment where my resourcefulness, experience, and academic skills will add value to the organization's operations

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## EDUCATION

University of California, Irvine

**Bachelor of Science, Biomedical Engineering**

August 2012 – Expected June 2016

**Minor: Materials Science Engineering**

**Specialization: Micro and Nano Biomedical Engineering**

**GPA: 3.60**

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## SKILLS AND AWARDS

**Relevant Courses** Biomechanics, Hemodynamics, Mechanical Behavior, Failure Investigation, Design of Biomaterials

**Instrumentation:** Rockwell Hardness Test, Atomic Force Microscope, Goniometer, Tetrahedron Press, Spin Coater, Sputter Coater, Ultraviolet Ozone Cleaner, VWR Vacuum Oven, Sonicator, Sandblaster, oscilloscope, digital multi-meter, function generator, breadboard, Arduino Uno board, NI ELVIS board, op-amp LM741

**Lab Safety:** Received Laboratory Safety and Ethics training which includes: biological, chemical, fire, laser, recombinant DNA, and radiation safety, regulations in animal and human subjects research, and HIPPA

**Programming:** MATLAB, LabVIEW

**Software:** SolidWorks, Microsoft Office Suite, Image J, ToupView, CutStudio, and Windows (XP, 7, and 8)

**Languages:** English and Spanish (Certified by the State of California)

**Other Skills:** Nanoimprint Lithography, Reversal Imprinting, Drop Casting, Clean room experience, risk management

**Awards:** Dean's Honor List, UROP Research Fellowship Award, Union Plus Scholarship, UCI Undergraduate Research Symposium Acceptance, Volunteer Recognition by AHMC Greater El Monte Community Hospital

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## EXPERIENCE

### RESEARCH ASSISTANT

July 2015-Present

University of California, Irvine; Department of Chemical Engineering and Materials Science- Irvine, CA

- Conducted experiments to design a protocol for the fabrication of length-controlled Poly (methyl methacrylate) (PMMA) nanopillars using Polydimethylsiloxane (PDMS) filled Anodized Aluminum Oxide Templates
- Tested different protocols using Nanoimprint lithography and drop casting, altered parameters based on observations, recorded data in a laboratory notebook, and presented results in group meetings and in a research symposium
- Formulated a protocol that successfully fabricates PMMA nanopillars with lengths between 200-600nm

### PROJECT MANAGER, Freudenberg Medical Design Project

January 2014 – June 2015

Freudenberg Medical - Carpinteria, CA

- Led a team of four engineers in the research and design of an automated prototype that sorts inserter sticks by length, with a \$3000 budget, and with the goal to eliminate a 5% human error in the sorting process
- Oversaw project, compiled the design history files, developed block diagrams and decision matrixes to organize ideas and data, sketched design proposals, conducted experiments on main components, and modeled parts in SolidWorks
- Eliminated a 5% error in the sorting process, utilized only \$1500, presented findings in a research symposium

### TRANSLATOR AND EMERGENCY ROOM VOLUNTEER

June 2013 – September 2013

Greater El Monte Community Hospital - El Monte, CA

- Collaborated with my community's local hospital to help establish better communication between physicians and Spanish speaking patients and assisted in 10 surgeries to determine possible new surgical devices that fulfill unmet needs
  - Translated for Spanish speaking patients, learned about surgical tools, and about degradable biomaterials
  - Completed 100 volunteer hours, created new Emergency Room Codes, and emergency protocols
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## EXTRACURRICULAR ACTIVITIES

Society of Hispanic Professional Engineers

June 2015-Present

- Promoted STEM awareness, the empowerment of the Hispanic community, and served as a mentor to undergraduates

Biomedical Engineering Society

June 2015-Present

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## ENGINEERING PROJECTS

### ARTIFICIAL CORNEA

July 2015-Present

Albert Yee Laboratory; University of California, Irvine- Irvine, CA

- Used nanofabrication to develop the world's first fully synthetic polymer cornea and conducted durability testing