

# Julia List

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## EDUCATION

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**California Polytechnic State University**, San Luis Obispo  
Bachelor of Science: **Biomedical Engineering**, March 2019  
Concentration: **Mechanical Design**

Overall GPA: **3.12**

### Coursework:

#### **Mechanical Engineering Design for Strength and Stiffness**

**Fall 2017**

- Presented design for a novel epinephrine injecting device
- Designed machine parts by stress and deflection
- Evaluated the effects of fluctuating stresses and stress concentrations

## INDUSTRY EXPERIENCE

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#### **Advanced Quality Engineering Intern**, Stryker Medical

**June - September 2017**

- Developed usability scripts to enhance safety and ease of use of hospital beds
- Communicated design changes with cross functional groups
- Executed surveys and studies to validate product designs
- Analyzed quality data to determine common device defects

#### **Mechanical Engineering Co-Op**, Abbott (formerly St. Jude Medical)

**January – June 2017**

- Developed test methods and fixtures to collect quantitative data about pacemaker and ICD components
- Created drawings for cardiac rhythm management devices and components
- Facilitated testing and data collection to validate equipment and new components
- Collected and modified documentation to meet regulatory requirements of ISO 14708 and EN 45502

## RESEARCH

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#### **Undergraduate Researcher**, Duke University

**June - August 2016**

- Automated bacterial growth using analog and digital electronics
- Used microbiology and protein expression to induce bacteria to express specific proteins
- Analyzed data using Python, Mathematica, and Linux
- Designed mechanisms to encase and protect electrical components of the machine

*Device being considered for a provisional patent*

## PROJECTS

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#### **UCLA's Healthcare Hackathon**, Second Place

**March 2016**

- Identified a need and developed a product and business plan in 24 hours
- Prototyped a device to improve physical therapy compliance and shorten recovery times
- Received 2<sup>nd</sup> place, judged on feasibility, originality, and pitch presentation

## EMPLOYMENT

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#### **Education Team Member**, iFixit

**September 2017-Present**

- Corresponded with college-aged students to develop their technical writing skills
- Collaborated with coworkers to create guides to help consumers fix their products
- Advocated for reducing electronic waste through blog postings and presentations

*16hrs/week*

## VOLUNTEER WORK

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#### **Run with Kappa 5K Annual Benefitting Jack's Helping Hand**, Fundraising Coordinator

**Fall 2016/2017**

- Facilitated sponsor donations from local and national companies
- Created sponsorship proposals, donation letters, and social media advertisements
- Contacted local organizations to improve visibility

## SKILLS

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### *Proficient at:*

Solidworks, CREO (ProE), Rhino, Microsoft Office

### *Familiar with:*

Linux, Python, Mathematica, MATLAB, Autodesk Inventor, AutoCAD, Minitab, LabQuest, PSpice

Individualization

Significance

Responsibility

Focus

Context