

# Raymond Akagi

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## Education:

**Bachelors and Masters of Science:** Mechanical Engineering

**California Polytechnic State University**, San Luis Obispo, CA

Expected Graduation: March 2021

Undergraduate **GPA: 3.6**

Graduate **GPA: 3.87**

**Thesis:** Create a theory based on actuator disc theory which includes frictional losses and swirl to predict/model the performance and/or parameters of importance for use as an energy extractor

## Related Course Work/Skills:

**Programs:** Matlab, Solidworks, EES, Caesar II, ADAMS

### Coursework:

- |                              |                              |  |
|------------------------------|------------------------------|--|
| - Mechanics of Materials     | - Statics/Dynamics           | - Design for Strength and Stiffness      |
| - Thermodynamics I/II        | - Fluid Mechanics I/II       | - Measurement and Data Analysis          |
| - Heat Transfer              | - Viscous Flow               | - Design of Machinery                    |
| - Advanced Heat Transfer     | - Compressible Flow          | - Mechanical Vibrations                  |
| - Thermal System Design      | - Mechanical Control Systems | - Machinery Vibration and Rotor Dynamics |
| - Nuclear Power Plant Design | - System Dynamics            | - Senior Design Project                  |

## Work Experience:

**Design Engineering Intern:** Chevron, Capital Projects Group

June – Aug 2020

**Location:** Chevron Richmond Refinery, **Richmond, CA**

- Worked on and completed various projects with cross-functional interns in a virtual environment
- Communicated effectively within the group and with other working professionals to gain and spread information
- Mentored other group members on piping systems, fluid mechanics, stress analysis, and general refinery knowledge
- Expanded my depth and breadth of knowledge in the upstream and downstream sections of the oil industry
- Provided suggestions and guidance on project decisions that balanced multiple aspects of the business needs
- Presented project results to technical and leadership team.

**Design Engineering Intern:** Chevron, Central Engineering Group

June – Sept 2019

**Location:** Chevron Richmond Refinery, **Richmond, CA**

- Worked in the Design Engineering Department focused on pipe stress analysis.
- Completed stress analysis and provided suggestions to Designs Engineer to have piping conform with standards and best practice.
- Worked with cross-functional groups
- Presented project results to technical and leadership team.

**Design Engineering Intern:** Chevron, Hydroprocessing Group

June – Sept 2018

**Location:** Chevron Richmond Refinery, **Richmond, CA**

- Worked in the Design Engineering Department supporting the Hydroprocessing units
- Completed 3 Engineering Work Orders and 3 Leak Seal Reviews
- Followed the design process to repair, improve, or remove equipment
- Worked with cross-functional groups to design and prepare EWO's to improve process safety
- Presented project results to technical and leadership team

**Mechanical Engineering Intern:** NTUST, Precision Manufacturing Lab

July – Sept 2017

**Location:** National Taiwan University of Science and Technology, **Taipei, Taiwan**

- Worked in a Precision Manufacturing Lab
- Learned about the CMP, wire sawing processes, and how a CCS works
- Designed a fixture in Solidworks, 3-D printed and installed it into a CMP machine
- Conducted experiments and completed analysis
- Prepared and presented findings to graduate students and Professor
- Helped Graduate students complete their thesis'

### Achievements:

- Dean's List 9 times: 2015 – present
- **Eagle Scout**, Boy Scouts of America: Oct 2014

### Activities/Interests:

- Member of Engineers Without Borders 2016 – 2019
- Member of Cal Poly Honors Program 2016 – 2018
- Intramural Soccer (Mens/Co-rec) 2015 – Present
- Futsal league 2018 – 2019

### Volunteer Experience:

- **Stanton Community Garden**, Castro Valley, CA 2012 – 2019
- **Castro Valley Sanitation District**, Castro Valley, CA 2010 – 2014
- **Nature Corps**, Yosemite restoration project July 2016