

Vincent Leung

Garden Grove, CA

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Education

University of California, Davis

Davis, CA

Bachelor of Science, Chemical Engineering

Jun 2020

Experience

Monterey Mechanical Co. | Project Engineer Intern

Jun 2019- Sep 2019

- Analyzed variety of drawings (structural, civil, electrical, mechanical, and P&IDs) to determine piping and fittings needed to connect gas to day tank
- Revised SOP according to OSHA guidelines to ensure safe excavation at the SFPUC Oceanside project
- Completed set of sectional drawings for implementation of conduits and rebar in duct banks
- Resolved issue with gas purge by submitting isometric detailing connection between gas tank and burner
- Conducted over 30 measurements to acquire embed lengths and angles needed for concrete pour

LibreTexts | Editor

Nov 2018-Nov 2019

- Structured content on LibreTexts, a nonprofit online open-source educational project
- Published over 30 pages of material to provide students access to online resources/textbooks

Academic Projects

Senior Design | Project Coordinator

Spring 2020

- Developed two design processes using Aspen Plus software to simulate dimethyl carbonate production while reducing utility costs by 91% and eliminating 3500 tons of carbon emissions annually
- Produced 66-page report that included retrofit design, economic feasibility, equipment sizing and calculations, and HAZOP analysis of dimethyl carbonate plant
- Co-authored correspondence to address deviations in linear regression model in 2020 published article
- Recipient of the 2020 Sandia Engineering Design Award out of 162 design teams

Chemical Engineering Reactor Lab

Winter 2020

- Performed saponification of ethyl acetate using batch and CSTR reactors to discover direct relationship between temperature and conversion

Chemical Engineering Thermodynamics Lab

Spring 2019

- Plotted DAQami pressure data in MATLAB to determine heat engine cycle of oscillating piston
- Operated distillation column at the UC Davis Chemical Engineering Lab and composed a technical report detailing a column efficiency of 43% when distilling 82% ethanol by volume

Chem-E-Car | Stopping Reaction Team

Fall 2017-Spring 2019

- Implemented stopping mechanism of the car using a spectrophotometer to observe color change
- Analyzed over 100 trials of data to determine primary materials for phosphoric acid battery

Skills

- **Programming:** MATLAB, Python
- **Analytics:** Aspen Plus (Process Simulation Software), SQL, Excel
- **Other:** Dash, HTML/CSS, LaTeX