

EDUCATION

Northwestern University | *Chemical Engineering major, c/o 2018*

- Transfer student from Emory University, Chemistry major. Dean's List.

Saratoga High School | *Saratoga, CA*

- Graduated with High Honors and AP Scholar with Distinction

RESEARCH EXPERIENCE

Notestein Laboratory, Northwestern University | *Organometallic Catalysis*

Jan. 2016 – present

- Sulfide oxidation coupled to hydrogen peroxide production from an MEC using novel heterogeneous rhenium-based catalysts as an urban bioreactor
- Catalyzed in situ formation of homo/heterogeneous peracids for oxidation reactions
- Lignin depolymerization using methyltrioxorhenium (MTO) at ambient temperatures

Laboratory of Biochemical Pharmacology, Emory University | *Organic Chemistry*

Sept. 2014 – Aug. 2015

- Reduced toxicity of HBV drug candidates while retaining potency by finding toxicity trends in molecular structures
- Independently designed and synthesized analogs of compounds showing antiviral potency against HBV using copper-catalyzed azide-alkyne cycloaddition and ionic liquid green chemistry reactions
- Analyzed reactions using nuclear magnetic resonance, mass spectroscopy, thin-layer chromatography
- Examined latest patents and literature regarding HBV pharmaceuticals, reaction conditions, and discoveries

Guo Laboratory, University of California San Francisco | *Bioengineering, Database Management*

June 2014 – Aug. 2014

- Worked to establish reliable line of transgenic GCaMP6s zebrafish that could be used in neural imaging and studying neurodegenerative diseases
- Created a database to track transgene and lineage of hundreds of zebrafish as well as automation scripts to notify lab members of zebrafish ready for breeding

EXTRACURRICULAR ACTIVITIES

Web Developer, Weinberg IT | *PHP, Laravel 5.1, Javascript, SQL*

Sep. 2015 – present

- Currently creating a centralized data integration service to sync student data across Oracle SES, Symplicity Insight, and Instructure Canvas via RESTful APIs.
- Created a balloting system to be used for gathering opinions on the student population based on departmental or program demographics

Robotics Club | *Treasurer, Hexapod Team Member*

Sep. 2015 – present

- Managing the funds of 4 Robotics Club teams and finding grants to fund new projects, such as a virtual reality control system
- Creating a six-legged robot capable of climbing over walls and remote control over WiFi