

Michael Mallory

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EXPERIENCE

Private Tutor

Oct. 2017 – Present

Freelance

Davis, CA; Sacramento, CA; Knoxville, TN; Houston, TX

- Provided tutoring services to middle school, high school, and college students in the following subjects: Mathematics (Algebra, Trigonometry, Geometry, Calculus I-III), Physics, Chemistry, Computer Science, Economics, History, Biology
- Improved student outcomes by identifying and empathizing with students' individual needs and developing multimodal lesson plans and learning strategies as suggested by research

AMPAC Fine Chemicals

Apr. 2017 – Sept. 2017

Associate Process Engineer

Rancho Cordova, CA

- Managed and scheduled 24-hour continuous operation of simulated moving bed (SMB) chromatography process which produced the active pharmaceutical ingredient (API) used in seizure medication
- Performed troubleshooting analysis and investigative studies to improve yield and purity of API product
- Responsible for producing customer reports and engineering calculations establishing viability of API product

W.R Grace

May 2015 – Aug. 2015

Intern, Specialty Catalysts

Charleston, WV

- Developed a database system for R&D which improved product reliability, enhanced ability to support customers, and decreased down-time in the Polypropylene production unit

Dow Chemical

Jan. 2013 – Aug. 2014

Co-op, Site Logistics | May 2014 – Aug. 2014

Charleston, WV

- Conducted pipe flow study of viscous material to determine root cause of product specification failures
- Introduced plan reducing raw material usage and decreasing failure rate of process
- Refactored Site Logistics software, removing 40 hrs. per year of data entry time from each user

Co-op, Engineering Solutions | Aug. 2013 – Dec. 2013

Freeport, TX

- Designed and oversaw installation of heat exchange equipment across Freeport Site
- Managed piping design and temperature/pressure indicator installation projects

Co-op, Run-Plant Engineer | Jan. 2013 – May 2013

Habnville, LA

- Acted as contractor coordinator during month-long, \$40 million plant-wide shutdown
- Designed and implemented new plant safety system with Environmental Health and Safety team

NiSource

May 2012 – Aug. 2012

Intern, Project Management

Charleston, WV

- Acted as project manager for odorizer installation projects in natural gas compressor stations in WV & PA

EDUCATION

West Virginia University

May 2016

B.S. Chemical Engineering

Morgantown, WV

- GPA: 3.81; Honors College; Summa Cum Laude; University Merit Scholarship; President's List (2011-2015)
- Chief Engineer, Class of 2016 (Led team of 30 in year-long design of a bio-refinery using local feedstock)
- Research involving design, modeling, and economic analysis of integrated gas combined cycle (IGCC) plants
- Teaching Assistant: WVU Department of Biology; Peer tutoring; WVU Club Rowing Team

OTHER SKILLS & INTERESTS

- Programming languages: Python, Java, C; 7 years tabletop RPG design & facilitation for children & adults (Dragon's Lair Comics & Fantasy, Houston, TX); Book review YouTube channel: youtube.com/@thebookends