# **ROY YI**

### **EDUCATION:**

Bachelor of Science in Computer Science (Expected June 2022) University of California, Davis Cumulative GPA: 4.0

#### SKILLS:

Proficient in C, C++, Python, and Java; extra experience in JavaScript, HTML/CSS, and BASH Tools/Platforms: Git, Vim, TeraChem, Google Test, Linux, Windows, Photoshop, Illustrator Relevant courses: Algorithms, AI, Data Structures, Operating Systems, Computer Architecture

#### **EXPERIENCE:**

Undergraduate Researcher

January 2020 to present

LPW Theoretical Chemistry Group

- Topic: Python 3 development of Nudged Elastic Band (NEB) method
- Implement new version of NEB feature in the geomeTRIC software package by porting existing Python 2 code to Python 3 and adding performance improvements
- Create Python applications to model geometry optimization and reaction pathways
- Automate calculations performed by command line applications using BASH scripts
- Study computational/chemical concepts through background research in 50+ papers

Code Coach

August 2020 to present

TheCoderSchool Folsom

- Provide high quality instruction by teaching one-to-one and designing a custom curriculum for each student, leading to greater interaction and student interest
- Strengthen student coding ability by teaching concepts, assigning homework, and building projects in Python, JavaScript, HTML/CSS, Snap!, and Scratch

Math Instructor

August 2020 to June 2021

Mathnasium of Davis

- Teach math concepts ranging from elementary school math to college calculus
- Deepen student understanding by explaining advanced math topics in an intuitive way, resulting in faster learning and improved attitudes towards math

Crew Member (service)

July 2018 to March 2020

Golden State MCD

- Communicated effectively with customers and kitchen crew to ensure that orders were made according to customer specifications, including special requests
- Worked together with team to reduce wait time and ensure customer satisfaction

## **AWARDS**:

- James and Leta Fulmor Scholarship (2018 2019)
- Hubert Wakeham Scholarship (2018 2019)
- Eugene Harvey Bush Scholarship (2019 2020)
- Student Scholars Fund Scholarship (2019 2020)
- Dean's Honors List, UC Davis (years: 2018, 2019, 2020)
- University Honors Program, UC Davis
- Co-founder of Chemistry Club (2018)