ELIJAH JIBBEN

CHEMISTRY // COMPUTER SCIENCE

CONTACT

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EDUCATION

GRAND CANYON UNIVERSITY

B.S. in Chemistry
In Progress (Graduating April 2026)

B.S. in Computer Science ~75% Complete Coursework - Major Changed to Chemistry

GPA: 3.8/4.0

KEY SKILLS

PROGRAMMING C++, Python, Java, MATLAB, HTML/CSS, Assembly

SOFTWARE

GAMESS, ORCA, Psi4, NWChem, Gaussian, Avogadro, PyMol, ChemDraw, ChimeraX

OTHER

Linux, Cluster/Supercomputer Computation, Docker, MongoDB & SQL Databases

LEADERSHIP

GRAND CANYON UNIVERSITY Chemistry Club – '25/26 Vice President

American Chemical Society (ACS) Student Chapter – '25/26 Secretary

PROFILE

Passionate chemistry and computer science student at Grand Canyon University with research interests in excited state systems, electron dynamics and theoretical chemistry. Experienced in diverse research settings and planning to pursue PhD in theoretical chemistry.

RELEVANT EXPERIENCE

UNDERGRADUATE RESEARCHER

AUG 2025 - PRESENT

Ames National Laboratory • Remote • Dr. Peng Xu

- Recently begun research involving input generation for fragmentation methods utilized by the GAMESS computational software package.
- Computation is carried out on the Perlmutter supercomputer at Lawrence Berkeley National Laboratory.

COMPUTATIONAL CHEMISTRY RESEARCH AND DESIGN PROGRAM (RDP) MEMBER

JAN 2025 - PRESENT

Grand Canyon University • Phoenix, Arizona • Dr. Charley Langley

- First semester work consisted primarily of an introduction to computational chemistry, regular meetings to discuss content and training with Gaussian and ORCA.
- Conducted a transition state analysis of the reaction between acetylsalicylic acid and serine 530, via Relaxed Surface Scan (RSS) and Nudged Elastic Band (NEB).
- Senior year research involves a self-directed research project involving excited state systems.

SCIENCE UNDERGRADUATE RESEARCH INTERN (SULI)

MAY 2025 - AUG 2025

Ames National Laboratory • Ames, Iowa • Dr. Long Qi

- Conducted full-time chemical engineering and computational chemistryoriented research.
- Gained considerable experience in wet lab environments conducting organic synthesis reactions utilizing high-throughput flow hardware such as reactor vessels, pumps, temperature controllers, in-line infrared spectrophotometers, multi-samplers, NMR and more.
- Built several data analysis algorithms and aided in cluster computing theoretical IR and Raman spectra via NWChem.
- Worked collaboratively with several scientists, post-docs and graduate students.