

Dominic Daprano

domdaprano@gmail.com ◇ 541-610-4273 ◇ [Website](#)

EDUCATION

Oregon State University

2018-Present

3.96 GPA

B.S. Computational Physics and B.S. Mathematics

Minor Computer Science

Anticipated completion June, 2022

RESEARCH EXPERIENCE

Oregon State University Chemistry Department *Researcher*

September 2021 - Present
Corvallis, Oregon

- Designing python package to utilize fragmented localization-delocalization matrices to predict molecule properties and generate new molecules.

Center For Qualitative Life Sciences *Undergraduate GPU Researcher*

July 2019 - Present
Corvallis, Oregon

- Created pipeline to process data for the [wwwPIC](#) collaborative project. I leveraged XSEDE's cloud infrastructure to segment and classify hundreds of terabytes of video data efficiently. The pipeline can now be found on [Zenodo](#).
- Made a data visualization website by utilizing OmnisciDB, Crossfilter.js and D3.js. The [website](#) geospatially maps the locations of plankton and has the ability to query them based on environmental information.
- Developed mechanical system and used [YOLO](#) object detection to sort closely related organic matter and propel the switch from a process largely done by hand.

nexTC *Lab Assistant*

June 2021 - September 2021
Corvallis, Oregon

- Studied and implemented processing techniques to make cheaper and better visibly transparent and electrically conductive thin films.
- Collected sample data using Ellipsometry and 4-point probe.

Oregon State University Graphics Department *Research Assistant*

July 2018 - June 2019
Corvallis, Oregon

- Researched modeling snow by looking into different descriptions of motion.

- Studied the Finite Element and Material Point Methods for their applications in modeling snow particles.

TECHNICAL SKILLS

Programming	C++, Python, JavaScript, Java and Bash
Libraries	PyTorch, OpenCV, OpenMP, NumPy and Vue.js
Mathematics	Linear Algebra, Numerical Analysis and Abstract Algebra
Other	SLURM, SGE, Linux, SQL, and Latex

AWARDS AND HONORS

Botand Gabor Eross Math Memorial Scholarship June 2021

Scholarship derived from faculty nominations that recognizes excellent academic achievements in mathematics.

SURE Scholarship Recipient June 2021

Summer research funding provided to help support students in STEM fields.

Dean's List Fall 2018 - Spring 2021

Completed at least 12 graded credit hours with a 3.5 GPA or higher in each term.

EXTRACURRICULARS

Astronomy Club 2018 - Present

Outreach Officer

Planned meetings and maintained telescopes. Lead public outreach by working with other organizations to expand and diversity club membership.

INTERESTS

When I have free time I enjoy fixed gear biking, ultimate frisbee, disc golf, and programming.