

Anthony Sun

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Education

Colorado School of Mines: *Computational & Applied Mathematics* 3.70 (2017-Present)

Colorado State University-Pueblo 3.78 (2015-2017)

Pueblo West High School [Valedictorian] 3.94 (2013-2017)

Experience

Summer Research Internship at *CU Anschutz Medical Campus* (Summer 2019)

- Preprint available here. Expanded the utility of GSEA In-Context to include RNA-seq. Queried for and analyzed RNA-seq data sets to verify the compatibility of GSEA-InContext with RNA-seq. Presented poster at Cancer Research Summer Fellowship Symposium 2019.

Independent Research Project on Mortality Rates (May 2018 - Present)

- *Paper in progress.* Simulated heterogeneous populations to test distribution parameters that produce a mortality curve with Late-Life mortality plateau. Presented this research at the 2019 National Collegiate Research Conference, the 2019 SIAM Applied Math Conference, and the American Physics Society's (APS) 2019 April Meeting. Received Outstanding Poster Presentation award at APS 2019.

Research Student at Seals Lab at *CU Boulder* (January 2019 - Present)

- Run *in vivo* and *ex vivo* assessments of vascular function in mice to determine the role of aging on arterial function. Participate in journal club, literature review, and experimental design discussions.

Research Student at Molecular Theory Group at *Colorado School of Mines* (Summer 2018)

- Work in Dr. Mark Eberhart's Molecular Theory Group. Use Molecule Modeling program to discover links between electronic structure and molecular condensed phase properties.

Tutor at Math Learning Center at *CSU-Pueblo* (October 2016 - May 2017)

- Tutored students in College Algebra, Calculus I, Calculus II, Differential Equations, Statistics, and Linear Algebra. Only high school student to be hired by MLC. Also worked as a private tutor.

Intern/Fellow at the *Colorado Democratic Party* (2014, 2016)

- Canvassed, trained volunteers, and recorded polling data during the 2014 and 2016 elections.

Community Outreach

Pueblo West Director of *Pueblo Programming* (July 2016 - August 2017)

- Pueblo Programming is the largest computer programming workshop in Pueblo reaching over 100 students and adults. As director, I established a partnership with the Pueblo County Library District.

YouTube Partner (Programming Tutorials and Music Videos): *YouTube*, 2014-Present

- 10,000,000+ views and 8,000+ subscribers

Awards and Honors

- 2019 American Physics Society March Meeting: Outstanding Poster Presentation Award
- National Speech & Debate Association: Premier Distinction (Rank #1 Colorado 2017).
- American Mathematics Contest School Winner 2014, 2016
- 2017 Swanson Math Competition Honorable Mention

Programming Languages: Python, C++, R, Matlab, LaTeX