

Ryan Anselm

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EDUCATION

Columbia University

BS in Computer Science, Minor in Applied Math

GPA: 4.0/4.0

Expected Graduation: May 2024

New York, NY

EXPERIENCE

Computational Chemistry Undergraduate Researcher

January 2021 - August 2021

- Worked in the Henkelman Group at UT Austin developing algorithms for finding and characterizing charge density critical points in the *Grid-based Bader Charge Analysis* research project.
- Gained familiarity with Fortran, numerical methods, and scientific programming practices.

Summer Intern at Applied Optoelectronics, Inc.

June 2020 - August 2020

- Designed and programmed a robot arm system for loading and unloading semiconductor chips.
- Implemented a basic visual inspection system for quantifying and correcting chip misalignment using LabVIEW.

High School Research Assistant at Rice University

June 2019 - August 2019

- Investigated the mantle geochemistry of siderophilic elements partitioned between carbonated and sulfidic magmas under Dr. Rajdeep Dasgupta. Co-author of *a paper* published in *Geochimica et Cosmochimica Acta*.

ACTIVITIES

Columbia University Science Olympiad

2021 - Present

Co-Founder & President

- Selected as an Exam Author/Event Supervisor for the following tournaments: Nationals (2021, 2022), MIT (2021, 2022), UT Austin (2020, 2021), UPenn (2021), Princeton (2020)
- Organized and directed the ATX Game On Tournament, a coding contest introducing the Scratch programming language to 40+ students in grades 6-9.

Columbia University Robotics Club

2021 - Present

- Developed motion & sensing systems for the Autonomous Vehicles project.

HONORS

United States National Chemistry Olympiad High Honors

2019, 2020

- Placed among the top 50 nationwide on the USNCO National Exam out of ~15,000 students.

USA Physics Olympiad Semifinalist

2020

- Placed among the top 400 nationwide on the USAPhO F=ma exam out of ~3,000 students.

National Merit Finalist

2020

USA Computing Olympiad Gold Division

2019

SKILLS

Programming Languages: Python, Java, C++, C, HTML/CSS, Fortran, Julia

Misc. Tools: UNIX/Linux, Pytorch, Numpy, Matplotlib, Git, LaTeX, Matlab, Mathematica, Arduino