# Anshul Singhvi

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## EDUCATION

Joined college directly after 10th grade ("early college").
Enrolled in a dual degree program between Columbia University and Bard College at Simon's Rock.

### COLUMBIA UNIVERSITY
B.S.E in Applied Physics
May 2022 | New York, NY
Cum. GPA: 3.3

### BARD COLLEGE AT SIMON'S ROCK
B.A in Physics
May 2022 | Gt. Barrington, MA
Cum. GPA: 3.3
Dean's List (Fall 2017, Fall 2018, Spring 2019)

## COURSEWORK

### UNDERGRADUATE
Machine Learning
Quantum Computing
Scientific Computing
Quantum Physics
Systems Programming
Partial Differential Equations

## SKILLS

### PROGRAMMING
Python • Julia • Java • Matlab
C • Shell • LaTeX • TikZ

### COLLABORATION
Worked with collaborators in various open-source organizations (mainly Julia-based) to add features to widely used packages.

### BUSINESS
Working knowledge of taxation, law and accounting. Experience dealing with international legal matters and consulting subject matter experts.

## LINKS

Github:// **asinghvi17**
LinkedIn:// **anshulsinghvi**

## EXPERIENCE

### NASA AMES | Volunteer Intern
05/2020 to 07/2020 | Virtual
- Created interactive graphical user interfaces to explore simulated and optimized rover paths for VIPER, a software to plan rover paths. Code was written in the Julia language.
- Also worked on optimizing some of the machine learning elements of VIPER.

### JULIA COMPUTING | Software Consultant
08/2019 to 06/2020 | Boston, MA
- Consulting for Pumas-AI, a clinical trial technology and pharmacometrics startup.
- Implemented software for data visualization of pharmacometric simulations and clinical trials.
- Collaborated with colleagues to design intuitive and simple plotting functions for complex pharmacometric plots.

### BARD COLLEGE AT SIMON'S ROCK | TA and Tutor
01/2018 to 03/2020 | Gt. Barrington, MA
- Acted as a lab teaching assistant, helping with setup and overseeing experiments in Physics I, II and Modern Physics Lab.
- Organized and scheduled class review sessions and individual tutoring for low to medium level courses in Computer Science, Physics and Math. Averaged 20 hours per week.

### FUTURE GROUP | Intern
06/2019 to 07/2019 | Mumbai, MH, India
- Shadowed senior management with a focus on big data, machine learning and artificial intelligence: specifically, the Heads of the Departments of Loyalty and Data Analytics, eCommerce, Digital Content and Marketing, ePayments; and, the Founder and Chairman, Mr. Kishore Biyani, also known as the "Father of Indian Retail".
- Acquired and visualized town level geospatial data for India with respect to population density in a given region.
- Acquired business intelligence from customer data using Palantir Foundry and Python. Looked primarily at automatically estimating individual trends and manually understanding macroscale purchase patterns on the seasonal level.

## RESEARCH

### HASTINGS LAB | Undergrad Researcher
Aug 2019 – Present | Gt. Barrington, MA
- Worked with **Prof. Harold Hastings** and **Prof. Jenny Magnes** to model biological neurons using systems of differential equations.
- Constructed analog circuits which solved those differential equations in order to model neurons on the hardware level.
- Simulated complex systems of neurons to model worm motion using Python and Julia. Performed deep statistical analyses on results.
- Presented posters of this research at the New York State Section APS meeting of 2019, as well as the International Physics of Living Systems conference in 2020.
- **First author** on paper in review for publication in Physical Review E.