

Abhijit Chowdhary

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<https://abhijit-c.github.io/>

Education

- **New York University** New York, NY
B.A. Joint Mathematics and Computer Science (In Major GPA: 3.596) Sep. 2016 - Present
 - Intending to do B.A./M.A. program at NYU to complete in 2020. This is why I'm applying to Master's in progress required positions.
 - Relevant undergraduate courses: Algorithms, Numerical Computation, Honors Analysis I/II, Honors Algebra I/II, Honors Linear Algebra, Honors Probability Theory, Topology.
 - Relevant graduate/PhD courses: Fundamental Algorithms, Numerical Methods I, Algebra, Partial Differential Equations
- **University of Maryland** College Park, MD
Visiting Student (GPA: 3.925) Summer 2017-2018
 - Coursework: Complex analysis, Number theory, Partial Differential Equations, Introduction to Artificial Intelligence.

Projects and Activities

- **First Robotics Team Member, Team 2849: Ursa Major** Columbia, MD
Hammond High School Sep. 2012 - Present
 - A robotics team; every new year they gather for a challenge created by FIRST Robotics to build a robot in six weeks.
 - I worked as a build-team / programming-team flex member and team captain during my student years, and now I help as a programming and design mentor during their season.
 - Has managed to consistently reach elimination and championship rounds at the regional level.
 - See their github here: <https://github.com/teamursamajor>
- **Tutor and TA at Courant** New York, NY
NYU Sep. 2017 - Present
 - I work as a Tutor and TA to Professor Siegel at NYU for his undergraduate basic algorithms and graduate fundamental algorithms course.
 - I host tutoring sessions for students to come in and answer questions, and I help to build course materials.
- **Algebraic Point Set Surfaces Implementation**
Geometric Modeling (Grad) Apr. 2018 - May. 2018
 - For a class final project, I implemented the theory in the paper *Algebraic Point Set Surfaces* by Gaël Guennebaud and Markus Gross from ETH Zurich.
 - The Paper presented an alternative method to take a point cloud to a triangularized mesh, and another method to estimate normals from a point cloud using algebraic fitting of a sphere.
 - Heavy use of the libraries Eigen, libigl, and nanoflann. Written in C++.
- **ffpoly**
Personal Project Dec. 2018 - Present

- After learning some algebraic number theory in my graduate algebra course, I decided to code an implementation of elements of the polynomial field $\mathbb{F}_n[x]$.
- Still in the infancy stages of the project and learning some of the theory as I code.
- Intention is to take it to the high performance computing course I'm taking Spring 2019 to optimize with parallel optimization.
- You can see the project here: <https://github.com/abhijit-c/ffpoly>

• **Project Euler**

Personal Hobby

2016 - Present

- Participant in the Project Euler mathematical programming challenges.
- Have solved 60 problems (Top 3.8% as of Jan 2019)

Skills

Programming Languages: C/C++, L^AT_EX, Java, Python, Matlab, Octave, Bash.

Languages: English, Latin, Broken Hindi

Operating Systems: Linux (Arch Linux laptop, Debian desktop)

Minor Mechanical Fabrication Skills

Miscellaneous: strong verbal and written communication skills, excellent troubleshooting and debugging skills, exceptional problem solving skills, good teams skills

Interests

Academic: Numerical Methods and Algorithms, Algebraic Number Theory, Computational Group Theory, High Performance Computing.

Computers: Have built and maintained my PC since 2012, and have modded my thinkpad X230 with various screen and hardware upgrades. Fulltime Linux enthusiast since 2012.

Membership: Student member of ACM and in the EBoard of the ACM Chapter of NYU.

Sports: Devoted Ravens (National Football League) fan.

Other: Have been semi-successfully getting into cooking.