Aniruddha Nadiga

Based in USA, willing to relocate
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ABOUT

I am looking for opportunities that will allow my to meaningfully use both my social/communication skills and my technical skills. I am a quick learner and am able to communicate complex and technical ideas in an understandable way to diverse audiences. You can find some projects and more information at asnadiga.github.io.

EDUCATION

University of Glasgow *September 2019 - September 2020*
Master of Science in Mathematics with Distinction Overall GPA: 21/22

Carleton College *September 2015 - June 2019*
Bachelor of Arts in Mathematics Overall GPA: 3.51/4

Budapest Semesters in Mathematics *Academic Year 2017-2018*
Fall & Spring Semester GPA: 3.71/4

STRENGTHS

Technical Problem Solving

- **Course Work** - Practiced applying mathematical techniques to theoretical and real world problems.
- **LANL research** - Learned and developed cryptographic protocols, which required understanding a wide range of real world and theoretical issues.
- **Interdisciplinary Competition in Modeling** - Worked with a group to develop a metric to evaluate the health of city. Awarded Meritorious winner (top 10%).

Communications and Group Work

- **National High School Debate League of China** Worked in a cross cultural context to run the NHSDLC (more details in Work Experience).
- **LANL Research** - Managed research projects and presented findings and progress various audiences.
- **Debate and Model United Nations** - Participated for over 8 years and have become a polished speaker. Ran both teams which involved organizing and working with large groups.
- **Tutoring** - Practiced communicating complex and abstract ideas in easy to understand ways to less experienced audiences.

TECHNICAL SKILLS

Basics of SQL, R, Javascript, and HTML. Proficient in LaTeX, Java, Python, and Mathematica.

WORK EXPERIENCE

National High School Debate League of China August 2020 - Present
League Director

Oversaw management of the National Debate League of China; over member 5,000 students.

- Conducted camps and tournaments on a tight schedule. Worked with with host institution on logistics, operations team on student recruitment, and academic team on curriculum development and teaching.
- Taught personalized lessons for member schools' debate programs while maintaining good relationships with member schools. Coordinated with all member schools to understand and fulfil their needs.
- Researched and published topic analyses. Acquired coaching level expertise in a few days for a new topic area every 2 months. Wrote the official in-depth topic analyses with a quick turnaround.

- Recorded and produced pre-recorded lectures for novice debaters. Due to Covid-19, rapidly transitioned entire curriculum into online format.
- Published premier issue of an academic journal of extraordinary work done by high school students.

Los Alamos National Laboratory *Summer 2018/19, Winter 2018*
Cryptography Research
- Developed methods to extend the range of quantum key distribution using new developments in fully homomorphic encryption technology, and presented findings to a variety of audiences.
- In process of completing two papers: first is a write up of the described results, and second is an accessible introduction to the area of lattice-based cryptography.

Carleton College Mathematics Department *2018-2019*
Mathematics Tutor
- 12 hours per week of tutoring students in various mathematics courses.
- Marked assignments for calculus courses in Fall and Winter terms.

Sunrise Education China *Summer 2017*
Adviser
- Developed curriculum and taught at the Beijing National Debate Camp 2017.

ACADEMIC ACHIEVEMENTS

- 1st Place and Top Speaker Award - Minnesota State Debate Tournament, 2016 and 2019.
- 1st Place - International World Schools Debate Invitational, 2015.
- Meritorious Winner (10th percentile) - Interdisciplinary Competition in Modeling, Winter 2017.

EXTRA-CURRICULAR

- Model United Nations 2015-2017; Member of Governing Board of 2017.
- Speech and Debate; 2015-2019; Club President 2017-2019.

MATHEMATICS/COMPUTER SCIENCE COURSES

Master's Courses

Masters Thesis*
Operator Algebras
Advanced Functional Analysis
Further Complex Analysis
Topics in Algebra - Advanced Group Theory
Advanced Algebraic Topology
Lie Theory
Further Group Theory - Geometric Group Theory

**An Accessible Introduction to the Theory of Infinity Categories* PDF

Undergraduate Courses

Mathematical Structures
Topology
Algebraic Topology
Differential Geometry
Non-Euclidean Geometries
Discrete and Convex Geometry
Abstract Algebra
Topics In Algebra - Representation Theory
Combinatorial Theory
Senior Thesis*
Real Analysis
Real Analysis II
Differential Equations
Elementary Theory of Numbers
Applied Regression Analysis
Probability Theory
(Computer) Data Structures
Computer Organization and Architecture
Software and Development

**On the Knotting probability of Random Equilateral Hexagons* PDF