# Srikar Varadaraj

## Resume

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Academic Interests

Algorithms, Machine Learning, Combinatorics, Game Theory, Complexity

Education

#### Columbia University, New York, NY

Bachelor of Arts in Mathematics and Computer Science (2013-2017), CGPA: 3.7

Masters in Theoretical Computer Science (2017-2018)

**Relevant coursework** 

• Algebraic Curves, Advanced Complexity, Advanced Algorithms, Advanced Machine Learning, Game Theory, Graph Theory, Algebraic Number Theory, Advanced Programming

#### **Experience**

## • Research Internship Program at Columbia University

**Summer**, 2017

Modeling and Simulation of User Generated Content Dynamics

• <u>Software Engineer (Intern) at Google, New York, NY</u>

Summer, 2016

Used Natural Language Processing tools to improve query understanding and search result quality for the Zagat app, which allows users to find restaurants and the best places to eat.

• <u>REU (Research Experience for Undergraduates) at Columbia University</u> **Summer, 2015** *Investigated Hurwitz Numbers, an analogue of Bernoulli Numbers. Found surprising patterns, new properties and connections to the zeros of p-adic L functions.* 

• REU (Research Experience for Undergraduates) at Columbia University

A project in Algebraic Topology. Generalized results of Clay and Watson for large classes of L-space twisted torus knots.

Publications and Presentations

## • Non-left-orderable surgeries on twisted torus knots

Katherine Christianson, Justin Goluboff, Linus Hamann, Srikar Varadaraj

Proc. Amer. Math. Soc. 144 (2016)

Preprint: arXiv:1410.1908

• Short presentation at ICM 2010 on certain developable surfaces (International Congress of Mathematicians)

**Teaching** 

#### Math Tutor

Summer 2016-Presen

• Taught students for the GRE, Modern Analysis 1, Modern Algebra 1, PDEs, Linear Algebra.

## <u>Undergraduate Teaching Assistant</u>

Fall 2014-Present

- Calculus I V1101, Modern Algebra 1 W4041, Analysis of Algorithms 1 W4231
- Discrete Mathematics W3203, Analysis of Algorithms 1 (Summer Session)

### **Honors and Awards**

- John Dash Van Buren Mathematical Prize (2017)
- Professor Van Amringe Mathematical Prize (2016)
- William Lowell Putnam Competition Top 200 (2014)
- I.I.Rabi Scholarship for scientific research (2013-2017)
- International Math Olympiad Training Camp (Top 15) India (2012,2013)
- KVPY Research Fellowship (2012)
- Represented India at the International Olympiad in Linguistics (2011)
- International Junior Astronomy Olympiad Training Camp India (2010)

#### Activities and Interests

- Chess FIDE (~2100), USCF (~2100). All-American Team 2007, 2008. Invited to the World Youth Championships as member of team USA, Drew Anand in a simultaneous chess match at ICM (2010)
- Organizational Committee Member of Columbia Japanese Society (Fall 2014 Fall 2015)

#### **Programming**

• C/C++, Java, Go, Python, LaTeX, Matlab