

# Srikar Varadaraj

## Resume

### Contact Information

Columbia University, New York, NY 10027

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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*
- **Software Engineer (Intern) at Google, New York, NY** **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.*
- **REU (Research Experience for Undergraduates) at Columbia University** **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** **Summer, 2014**  
*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](https://arxiv.org/abs/1410.1908)
- Short presentation at *ICM 2010* on certain developable surfaces (International Congress of Mathematicians)

### Teaching

- **Math Tutor** **Summer 2016-Present**  
• *Taught students for the GRE, Modern Analysis I, Modern Algebra I, PDEs, Linear Algebra.*
- **Undergraduate Teaching Assistant** **Fall 2014-Present**  
• *Calculus I - V1101, Modern Algebra I - W4041, Analysis of Algorithms I - W4231*  
• *Discrete Mathematics - W3203, Analysis of Algorithms I (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