

UTHSAV CHITRA

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Website: <https://uthsavc.github.io>

EDUCATION

Princeton University, Princeton, New Jersey

Sept 2018 - Present

Ph.D. Candidate in Computer Science

Brown University, Providence, Rhode Island

Sept 2013 - May 2017

Sc.B. Mathematics, A.B. Computer Science, A.B. Applied Math

GPA: 4.0/4.0

PUBLICATIONS

*Authors generally appear in order of contribution, with * denoting joint first authorship. Any papers with alphabetical ordering of authors are marked with ^(A).*

NetMix: A network-structured mixture model for reduced-bias estimation of altered subnetworks. Matthew A Reyna*, Uthsav Chitra*, Rebecca Elyanow, Benjamin J Raphael.

International Conference on Research in Computational Molecular Biology (RECOMB) 2020.

Analyzing the Impact of Filter Bubbles on Social Network Polarization^(A). Uthsav Chitra, Christopher Musco. *ACM International Web Search and Data Mining Conference (WSDM) 2020.*

Random Walks on Hypergraphs with Edge-Dependent Vertex Weights. Uthsav Chitra, Benjamin J Raphael. *International Conference on Machine Learning (ICML) 2019.*

Committee Selection is More Similar Than You Think: Evidence from Avalanche and Stellar. Tarun Chitra, Uthsav Chitra. *Manuscript, 2019.*

HONORS AND AWARDS

NSF Graduate Research Fellowship Recipient

2020

Jerome Stein Memorial Award, Brown University Applied Math Department

2017

- Given to two students each year who “show outstanding potential in an interdisciplinary area that involves applied mathematics.”

Phi Beta Kappa, Brown University (elected junior year)

2016

Top 200, William Lowell Putnam Math Competition

2015

TEACHING EXPERIENCE

Instructor, Princeton Prison Teaching Initiative

2019-Present

- Teaching algebra at a New Jersey state prison as a part of the NJ-STEP program, an accredited higher education program which helps inmates receive associate’s degrees.

Teaching Assistant/Grader, Brown University

- **MATH 1560**: Number Theory
- **CSCI 1570**: Design and Analysis of Algorithms
- **CSCI 1450**: Probability in Computing
- **CSCI 0530**: Linear Algebra for CS
- **MATH 1530**: Abstract Algebra

Spring 2016, Spring 2017

Fall 2015, Fall 2016

Spring 2015

Fall 2014

Spring 2014

Counselor, Program in Mathematics for Young Scientists (PROMYS)

Summer 2014

- Counselor for summer program that introduces high school students to higher math through elementary number theory.

TALKS

NetMix: A network-structured mixture model for reduced-bias estimation of altered subnetworks

Conference on Research in Computational Molecular Biology (RECOMB)

June 2020

Analyzing the Impact of Filter Bubbles on Social Network Polarization

ACM International Web Search and Data Mining Conference (WSDM)

February 2020

KDD WISDOM Workshop

August 2019

Random Walks on Hypergraphs with Edge-Dependent Vertex Weights

International Conference of Machine Learning (ICML)

June 2019

STUDENTS ADVISED

Shirley Zhang, Princeton CS undergrad

2020-Present

Kimberly Ding, Princeton CS undergrad

2019-Present

SERVICE

Volunteer curriculum developer, Princeton Prison Teaching Initiative

2020-Present

- Developing lessons and assignments for a new computer science course to be taught in NJ state prisons.

Judge, RECOMB poster session

2020

Officer, Brown Math Departmental Undergraduate Group

2015-2017

Mentor, Brown Matched Advising Program for Sophomores

2016-2017

WORK EXPERIENCE

Software Engineer, Facebook

2017-2018

- Developed models and infrastructure for news feed ads.

Software Engineering Intern, Facebook

Summer 2016

- Worked on various projects on the Video Ads team.

Hobbies/interests: **Bouldering**, biking, political betting markets, bad puns.