Rohan Garg

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Education

Purdue University

Aug 2020 – May 2025 (Expected)

Ph.D. in Computer Science (In Candidacy)

Advisor: Alexandros Psomas

Thesis: Algorithmic Economics in Modern Computational Settings

The University of Texas at Austin Aug 2016 – May 2020

B.S. in Electrical and Computer Engineering Track: Software Engineering

Honors and Scholarships

Ross Fellow (Purdue): "Recognizes academic excellence." 2020 – 2024

University Honors (UT Austin) Fall 2016, 2019

Industry Experience

DoorDash - Sunnyvale, CA - Machine Learning Engineering Intern (Blog Post). Summer 2024

Designed and implemented novel budget pacing algorithm that reduced daily over-delivery of advertiser budget by 2%. Derived actionable insights from ad-spend data and gave presentation on team-level goals for budget pacing system. Tech Stack: Python, PySpark, SQL, Snowflake, and Databricks.

Amazon (AWS) - Seattle, WA - Software Development Engineering Intern

Summer 2019

Increased verification of AWS billing by implementing serverless function that manipulated data from DynamoDB for the Commerce Platform. Tech Stack: Java, AWS S3, Lambda, and DynamoDB.

Cox Automotive - Austin, TX - Software Engineering Intern

Summer 2018

ICDCN, 2019

 $Developed \, NLP \, tools \, to \, identify \, customer \, pain-points \, from \, user \, reviews \, for \, Backend \, Services \, team. \, Wrote \, automated \, tests \, for \, front-end \, verification. \, Tech \, Stack: \, Python, \, AWS \, Comprehend, \, C\#/.NET, \, and \, Selenium.$

Publications

Fairly Allocating Goods in Parallel - R. Garg, A. Psomas. arXiv, 2023

Randomization in Efficient Mechanisms Without Money - R. Garg, A. Psomas. Manuscript, 2021

Fast and Work-Optimal Parallel Algorithms for Predicate Detection - R. Garg. arXiv, 2020

Parallel Algorithms for Predicate Detection - V.K. Garg, R. Garg.

Teaching Experience

Algorithms, (UT Austin & Purdue) - Teaching Assistant

Spring 2019, 2020 & Fall 2021, 2023

In charge of creating and grading assignments, holding office hours, and teaching topics including dynamic programming, network flow, and intractability for ≈ 300 students. Served as Head Graduate TA in Fall 2021.

Spring '19 rated 4.5/5. Spring '20 rated 4.8/5. Fall '23 rated 4.4/5.

Skills

Programming Languages: Python.

Frameworks/Tools: PySpark, Databricks, Snowflake (SQL), LaTeX. Industry Practices: Agile Methodology, Git Version Control.

Other

Languages spoken: English (Fluent), Hindi (Advanced), Spanish (Limited).

Academic Service: 2025 ESA Reviewer

Other Interests: Badminton, Tennis, Soccer, Contract Bridge, Chess.