

Kris Satya

Computer Science and Math Student at Georgia Tech

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📍 San Jose, CA

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in ksatya-3

🔔 koolcards

Education

Georgia Institute of Technology

📅 Aug. 2018 - May 2022

B.S. in Computer Science, Minor in Mathematics GPA: 4.0

📍 Atlanta, GA

CS Concentrations: Intelligence & Systems Architecture

Selected Coursework: Design & Analysis of Algorithms *Honors*, Data Structures & Algorithms, Advanced Algorithms (IP), Intro to Robotics & Perception, Automata & Complexity, Probability & Statistics, Combinatorial Analysis

Teaching Experience:

Teaching Assistant, Design & Analysis of Algorithms

📅 Aug. 2021 - Current

Teaching Assistant, Systems & Networks

📅 Aug. 2020 - May 2021

- Held weekly recitations and office hours for over 50 students, graded exams and projects, and lead project demos.
- "Cool dude." (source: Fall 2020 anonymous course evaluation)

Software Experience

MongoDB

📅 June 2021 - Aug. 2021

Software Engineering Intern | Storage Execution

📍 New York, NY

- Added support for update and delete operations to previously append-only time-series collections, data stores optimized for high ingestion time dependent data, to MongoDB 5.1.
- Created extensive C++ unit tests and integration tests to identify edge cases with concurrency and complex nested queries.

Georgia Tech College of Computing

📅 Jan. 2021 - Current

Research Assistant | Dr. Qirun Zhang

📍 Atlanta, GA

- Working to solve Dyck reachability problems at the intersection of compilers, graph theory, and complexity.
- Current work involves complexity analysis for new Dyck reachability algorithms on dynamic graphs and developing a domain-specific language to specify Dyck languages in a human-readable format.

Amazon Web Services

📅 May 2020 - July 2020

Software Development Engineer Intern | Networking Core

📍 Cupertino, CA

- Worked with LightCycle, a network health tool used thousands of times per day for testing device connectivity.
- Used AWS resources to create a canary, a service to monitor LightCycle status, publish metrics, and automatically create tickets every hour, to ensure LightCycle availability and reliability.

Georgia Tech Bits of Good

📅 Aug. 2019 - May 2021

Engineering Manager

📍 Atlanta, GA

- Lead a team of six developers to build a website for nursing home regulatory nonprofit, Ombudsman, allowing government officials to search for/filter PDFs by keywords and administrators to manage/update documents.
- Assigned sprint issues, lead engineering meetings, and coordinated between product manager, designers, and developers.

Junior Developer

- Worked with child trauma services nonprofit, Philadelphia Alliance for Child Trauma Services to develop an interactive resource map to filter and search for nearest support centers by location and category. [final product](#)

Georgia Tech Volleyball Spike

📅 Nov. 2018 - Sept. 2019

Georgia Tech Sports Hackathon

📍 Atlanta, GA

- Built a web analytics tool for the GT volleyball coach to visualize the height and intensity of players' jumps during games.
- Developed an automated web scraper to transfer player data to local database.

Georgia Tech Research Institute

📅 May 2019 - July 2019

Research Intern | Electro-Optical Systems Lab

📍 Atlanta, GA

- Developed a Python module to transform LiDAR data into a 3D point cloud (a.k.a 3D map) and added multi-threading for a 2x speed-up over previous Matlab library.
- Improved land vs. water classification algorithm by 75% using a k-d tree for spatial partitioning.

Publications

Efficient Algorithms for Dynamic Bidirected Dyck Reachability

Yuanbo Li, Kris Satya, Qirun Zhang

In *Proceedings of Symposium on Principles of Programming Languages (POPL)*, 2022. (Conditional Accept)

Skills

Languages: Python, Javascript, Java, C++, C | Technologies: React, Git, Flask, AWS Resources

fun fact: Hattie B's Hot Chicken makes up 1/10 of my body mass.