

KRUSHAY BHAVSAR

New York City Metropolitan Area | (201) 375-5770 | krushaybhavsar@gmail.com | U.S. Citizen

Portfolio: krushaybhavsar.com LinkedIn: linkedin.com/in/krushaybhavsar GitHub: github.com/krushaybhavsar

EDUCATION

Georgia Institute of Technology – GPA: 3.95/4.00, Faculty Honors

Atlanta, GA

B.S. in Computer Science / Concentration in Information Internetworks & Cybersecurity

May 2026

- **Relevant Coursework:** Systems & Networks, Computer Networking, Design & Analysis of Algorithms, Computer Organization & Programming, Data Structures & Algorithms, Statistics & Applications, Discrete Mathematics, Linear Algebra
- **Clubs/Activities:** GT Experimental Rocketry, Outdoor Recreation @ GT Bikepacking Staff, Startup Exchange, Intramural Soccer

SKILLS

Programming/Markup Languages: TypeScript, JavaScript, Python, Java, SQL, R, MATLAB, C, C#, HTML, CSS, SCSS, XML

Frameworks/Libraries: React.js, Node.js, Express.js, Java Spring, Google Guice, Google Guava, JUnit5, Django, Flask, Redux

Tools: PostgreSQL, Amazon Web Services (Cognito, EC2, ECS, ECR, S3, Lambda), PowerShell, Linux, Firebase, Git, Android Studio

EXPERIENCE

Georgia Tech Research Institute

Atlanta, GA

Undergraduate Researcher

Aug 2024 – Present

- Led the LLM Inference team, **reducing inference times by >15%** in the Evolutionary Multi-objective Algorithm Design Engine through **speculative decoding, tool-calling, retrieval augmented generation (RAG), prompt engineering, and batching**
- Developed an improved “Evolution of Thought” technique within LLM-Guided Evolution, a framework cited by Google DeepMind’s AlphaEvolve, using a result-driven, self-enhancing feedback loop that fine-tunes architectural evolution

Wealthfront, Automated Investing Firm

Palo Alto, CA

Backend Software Engineer Intern – Trading Infrastructure Team

May 2025 – Aug 2025

- Designed and implemented a low-latency trade order pricing system for low-liquidity, wide bid/ask spread instruments to improve allocation prices for **over 1.4M trades daily** and **reduce order cancellations by >5%** using **Java, Hibernate, and MariaDB**
- Authored and presented in-depth **technical design documents** with **historical incident analysis, UML diagrams, and code-level insights** to the VP of Engineering & senior leadership to deploy the optimized pricing system across trading infrastructure
- Automated the pruning of stale trade account data via **batch processing jobs on Apache Airflow**, removing over **600K rows daily** and **40M+ rows of data total** to improve query performance and ensure high concurrency for account processes

Vertice AI, Financial Technology Startup

Durham, NC

Associate Software Engineer Intern

Jun 2024 – Aug 2024

- Developed an analytics solution using **React.js, Python, PostgreSQL, Express.js and AWS** technologies to assist credit unions in tracking growth/engagement and identifying marketing opportunities for specific members
- Automated the generation of transaction models by implementing a component-based system with vectorized full-text search to analyze member behaviors, resulting in a **40% reduction in code volume** and a **50% improvement in runtime efficiency**
- Devised predictive models to **efficiently analyze over \$5 billion** in member transactions, track spending trends, and categorize members for partnered credit unions to know, grow, and measure their overall membership

Jane Street Capital, Quantitative Trading Firm

New York, NY

Academy of Math and Programming Fellow

Jul 2023 – Aug 2023

- Designed and implemented algorithmic solutions to complex problems in **game theory, graph theory, and linguistics** using Python, enhancing skills in data analysis, decision-making under uncertainty, and quantitative trading strategies
- Achieved 7th place in Jane Street’s Electronic Trading Challenge (ETC) by developing high-frequency trading algorithms in a competitive 6-hour trading session, resulting in one of the highest Profit-and-Loss (P&L) scores among 80+ participants
- Collaborated with International Math Olympians to complete intensive coursework in **combinatorics and number theory**

Mentor Labs, Harvard Technology Startup (acquired)

Boston, MA

Software Engineer

Aug 2021 – Apr 2022

- Developed a full-stack application using **React.js, Express.js, Java Spring, PostgreSQL, and AWS** services to assist thousands of high school students in the college admissions process via a virtual guidance counselor and summer program recommendations
- Implemented a matching algorithm for scholarship/summer programs and leveraged React.js to create a seamless UX on the landing page, dashboard, scholarships, and summer programs pages, resulting in a **25% increase in user retention**
- Contributed to a cross-functional development team while following the Agile Scrum methodology and establishing weekly team goals/timelines, leading to a **global user base of over 10,000 students** and incubation at the Harvard Innovation Labs

PROJECTS

Elytra

<https://github.com/krushaybhavsar/elytra>

TypeScript, Express, Electron, SQL, AWS Cognito

September 2025 – Present

- Developed an open source, notebook-style database management tool that allows on-call engineers to streamline incident analysis by using natural language to explore data, generate complex SQL queries, and visualize trends/anomalies
- Designed a modular backend using the Service Provider Interface (SPI) pattern to support a plug-and-play database architecture, integrating LLM-powered, schema-aware SQL generation and metadata-driven retrieval to automate incident analysis

CERTIFICATIONS & AWARDS

Certifications/Courses: Introduction to IoT (Cisco), Introduction to Cybersecurity (Cisco), Practical Introduction to Quantum-Safe Cryptography (IBM), Basics of Quantum Information (IBM), CodePath Advanced Technical Interview Prep

Honors/Awards: 1st Place SimpliHacks Hackathon (international), 1st Place High Tech Hacks Hackathon (international), 2x Wolfram Alpha Award Winner, 1st Place KIPR Robotics Competition (national), Valedictorian of Secaucus High School