

Aarav Sharma

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EDUCATION

Georgia Institute of Technology, College of Computing

Atlanta, GA

BS/MS in Computer Science

Expected May 2027

- **Concentrations:** Information Internetworks & Artificial Intelligence
- **Relevant Coursework:** Linear Algebra, Applied Combinatorics, Design & Analysis of Algorithms, Systems & Networks

WORK EXPERIENCE

Amazon

Seattle, WA

Software Development Engineer Intern

May 2025 – Aug. 2025

- Engineered a React Native carousel for Echo devices, increasing one-tap photo additions by 36% for ~15.5 million monthly users
- Created comprehensive Jest testing suite for frontend components, maintaining 95% test coverage across four distinct user flows
- Led multi-tiered feature gating rollout strategy and success metrics implementation, driving a 28% increase in app engagement

ManTech International Corporation

Herndon, VA

Software Engineer Intern

May 2024 – April 2025

- Trained Graph Neural Networks to identify software vulnerabilities in binary files, achieving over 90% classification accuracy
- Developed a custom LLM using SGLang for commit message analysis and CWE classification, boosting threat detection by 25%
- Automated commit analysis and classifying 60+ software vulnerabilities, reducing threats by 30% and improving version control

Georgia Institute of Technology, Design Innovation & Computational Engineering Lab

Atlanta, GA

Undergraduate Research Assistant

Dec. 2023 - Present

- Engaging in a research project focused on the computational analysis of a cross-flow heat exchanger using topology optimization
- Enhancing performance of location detection by utilizing PyTorch to model data and design Convolutional Neural Networks
- Processing 15+ CFD features to produce accurate quantitative predictions of fluid-flow phenomena in OpenFOAM simulations

PROJECTS

Spotify Wrapped App With Personalized LLM Analysis

Atlanta, GA

Full-Stack Developer

Jan. 2024 – May 2024

- Built a Spotify Wrapped mobile app using Android Studio, integrating dynamic music visualizations and serving 150+ active users
- Integrated LLM API for data analysis to reveal personalized correlations between music taste and behaviors, thoughts, and fashion
- Designed OAuth2-based user authentication with Firebase and Google Sign-in, ensuring response times of under 200 milliseconds

Full-Stack College Scheduler App

Atlanta, GA

Full-Stack Developer

Jan. 2024 – May 2024

- Developed a college scheduler app with Android Studio, Java, and Firebase to help 500+ students manage their academic schedules
- Integrated push notifications using Firebase Cloud Messaging to remind students of upcoming classes, assignments, and exams
- Implemented a custom dynamic schedule conflict detection algorithm with Firebase Firestore, reducing scheduling errors by 40%

Statistical Analysis and Evaluation of Tennis Games Using Computer Vision

Leesburg, VA

Lead Developer

May 2022 – May 2023

- Engineered a neural network with over 95% accuracy using TrackNet and OpenCV to detect precise tennis ball bounce locations
- Constructed a dynamic HTML webpage to graphically visualize ball bounces and statistical data for over 100 unique rallies
- Authored and presented a 15-page scientific research paper to showcase findings to 300+ students at a local research symposium

EXTRACURRICULARS

Alpha Kappa Psi – Epsilon Sigma Chapter

Atlanta, GA

Software Development Project Manager

Jan. 2024 - Present

- Spearheading the AGILE development process for a team of 10 members by creating JIRA tickets for actionable software changes
- Facilitating more efficient fine and points tracking system for 100+ brothers with a custom-built REST API and MERN application

Big Data Big Impact

Atlanta, GA

Project Analyst

Sep. 2023 - Present

- Developing real-time sign language classification using sequences and computer vision to improve learning capabilities
- Improving algorithmic performance and enhancing project insights by over 35% by conducting data-driven analysis

Georgia Tech Student Foundation (GTSF) Investments Committee

Atlanta, GA

Investments Analyst

Jan. 2024 - Present

- Managing GTSF's \$2,000,000+ endowment fund through continuous investments and a philanthropic portfolio of steady return
- Continuously researching market trends and analyzing financial data to optimize the committee's investment strategy

SKILLS

Programming:

Python, Java, JavaScript, Swift, Kotlin, HTML/CSS, React Native, PyTorch, Bootstrap, Flutter, TensorFlow

Software:

GCP, GitLab, Git, Bitbucket, Docker, Jira, Node.js, AWS, Flask, Firebase, Django, Kubernetes, Heroku

Languages:

English (native), Hindi (native), Urdu (native), Punjabi (elementary), Spanish (elementary)

Interests:

Photography, Traveling, Tennis, Reading, Dance, World History, Volleyball, Hiking, Nature, Music, Guitar