Sarthak Das

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EDUCATION

Georgia Institute of Technology — **Atlanta, Georgia**
B.S. in Computer Science — *Graduation: May 2027*

SKILLS

- **Technical Skills:** Java, C, C++, C#, Rust, Python, JavaScript, R, HTML, CSS, Django, Jupyter, JUnit, Apache, TensorFlow, Docker, ReNode, LC3Tools, CircuitSim, Ubuntu, WSL, RISC-V, MySQL, SQL, Git, GitHub, Jira, Agile, Azure, React
- **Relevant Coursework:** Data Structures & Algorithms, Objects & Design, Organization & Programming, Probability & Statistics for Computing, Linear Algebra, Discrete Math, Intro to Object-Oriented Programming, Integral Calculus
- **Hobbies:** Basketball, gaming, thrifting, cooking, video editing, traveling, guitar, public speaking

EXPERIENCE

Carnegie Mellon University — **Pittsburgh, Pennsylvania**
Embedded Systems Research Intern — *May 2025 - Present*

- Set up Renode emulation environment for secure, real-time execution of applications on Murax RISC-V SoC, improving algorithm performance by 75%
- Implemented Elliptic Curve DSA operations on Murax using Renode on Linux and Unix OS.
- Analyzed system metrics to detect performance bottlenecks and optimize memory usage by 15%
- Explored hardware acceleration strategies to reduce operational cybersecurity risks and increase system resilience by 83%

Georgia Tech Vertically Integrated Project — **Atlanta, Georgia**
Undergraduate Researcher (Law, Data & Design) — *June 2025 - Present*

- Analyzed 410K+ legal claim records and 100K+ docket sheets, using Python with spaCy and pandas to extract named entities, normalize messy legal text, and surface patterns of bias across courts
- Built scalable, modular data pipelines using Python (pandas, NumPy, regex, JSON libraries) to clean, structure, and validate unstandardized court records, enabling downstream classification models and dashboard visualizations for justice system research

Westlake Corporation — **Houston, Texas**
Consultant — *June 2025 - Present*

- Engineered a scalable Python-based data processing tool to securely aggregate product intelligence across 500+ SKUs, enabling risk-aware pricing decisions and improving enterprise efficiency by 10%

University of Nebraska — **Lincoln, Nebraska**
Research Intern — *June 2023 - August 2023*

- Developed a Python script to automate the recalibration of 1000+ different recharge rates for MODFLOW simulations, resulting in a 90% increase in efficiency and achieving 100% accuracy

PROJECTS

Movie Store Application — **Atlanta, Georgia**
Scrum Master — *January 2025 - May 2025*

- Developed a full-stack Django web application, with a team of 4-6 members in an agile environment, GT Movies Store, implementing 20+ user stories in compliance with full CRUD functionality for reviews and user account management
- Implemented secure authentication protocols (login, reset, access permissions), emphasizing data privacy and compliance with information security best practices

NBA Statistics Application — **Katy, Texas**
Developer — *January 2025 - May 2025*

- Programmed a full-stack java-based application to fetch and display real-time NBA statistics using Google and an NBA API, managing data in the backend using distributed systems, for 500+ active players and 30 teams

FinTech Sentiment Analysis Tool — **Richardson, Texas**
Developer — *April 2024*

- Spearheaded a team of 4 in development of an NLP-based machine learning model (BERT) to analyze market sentiment on carbon industry news with 85% accuracy across 100k+ entries, supporting data-driven risk assessments
- Built secure scraping pipelines and scalable predictive models to support real-time analytics, decision-making, and business-critical insights for fintech applications

LEADERSHIP

TEDx at Georgia Tech — **Atlanta, Georgia**
Treasurer — *January 2025 - Present*

- Developing financial management skills by budgeting, tracking expenses, reaching out to investors & sponsors, and managing over 10k in sponsorship funds to ensure the financial stability of TEDx at Georgia Tech