Akshit Thavanati

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EDUCATION

Virginia Tech | GPA: 3.82/4.0 Expected Graduation: May 2026

Bachelor of Science in Computer Science & Bachelor of Arts in Economics, Minor in Mathematics

Organizations: VT Hacks. Google Dev Club, VT Web Dev. Phi Kappa Psi Fraternity (Social). Economics Club

Honors: Academic Scholarship, Presidential Campus Enrichment Scholarship (PCEG), Dean's List (Fall 2022-Present)

EXPERIENCE

Bocconi University Milan, Italy

ML/AI Research Assistant

Ianuary 2025 - May 2025

- Conducted research on the impact of income disparities on economic growth in third-world countries using **machine learning models** such as **Random Forests** and **Gradient Boosting** to analyze socio-economic datasets.
- Built data preprocessing pipelines with Pandas and NumPy to clean and normalize datasets, focusing on income inequality
 metrics, GDP growth, and labor force statistics.
- Collaborated with interdisciplinary teams on ethical AI applications and contributed to a research paper (in progress).

CoStar Group Richmond, VA

Full Stack Software Engineering Intern

June 2024 - August 2024

- Built modular micro frontends (MFEs) using **React**, **TypeScript**, **Express**, and **Docker** for CoStar Suite, improving agent data collection and analytics; aiding a 15% increase in internal reporting efficiency across product teams.
- Developed backend APIs and microservices with C#, .NET Core, and SQL Server, facilitating efficient data validation, transformation, and reporting across 30M+ internal user records.
- Designed an ETL pipeline using **C#**, **Python**, and **SQL Server** to aggregate 1M+ property listings from high value vendors.

Citizens Financial Group Remote

Data Engineer Intern

January 2024 - May 2024

- Designed and implemented an end-to-end data automation pipeline using C# and RESTful APIs, streamlining the ingestion, transformation, and validation of 3,000+ daily JSON entries, reducing manual effort by 13%.
- Built a scalable PostgreSQL database schema with optimized indexing, improving query performance by ~25% for analytical
 workloads.
- Integrated **Apache Kafka** for real-time streaming of transactional data, improving data availability for downstream systems.

J.B. Hunt Lowell, AR

Mobile Software Developer Intern

May 2023 - December 2023

- Shipped reusable core service components for the DRIVE logistics app, reducing development time for downstream teams by 30%.
- Developed and deployed cross-platform mobile features using React Native, JavaScript, and TypeScript, improving user experience for 5,000+ active drivers.
- Optimized legacy mobile app codebases via **RESTful** backend services in **Node.js** and **Express**, reducing app launch times by 0.4%.

PROJECTS

Navigrade

devpost.com/software/navigrade

- Used React.JS framework (HTML, JavaScript, CSS) to develop a web application that rates a driver's safety by analyzing speed, focus, and awareness.
- Implemented face.js, a machine learning API to track 68 facial landmarks in real time, a Geolocation API to monitor driver speed, and a Google Cloud API to provide directions to the nearest rest stop when necessary.
- Created an artificial intelligence system to spot signs of exhaustion from user speed and facial position data.

Interactive Vocal Rubik's Cube

devpost.com/software/interactive-rubik-s-cube

- Crafted programs to create voice-controlled cubes with the use of matrices, mapping out each piece of the cube, shuffle cubes, and
 manipulate cubes.
- Implemented AssemblyAI API, Processing, and PeasyCam to enable voice commands for a hands-free experience.

SKILLS/LEADERSHIP/AWARDS

- Languages: JavaScript, TypeScript,, Java, Python, R, C#, SQL, Swift,
- Frameworks: React. JS, React Native, Angular. js, Vue. js, Jest, Spring, Grails, R Logo, .NET, Express, RESTful API
- Tools: Git, Azure DevOps, Google Cloud, Agile, Power BI, Kubernetes, Docker, Apache Kafka, Pandas, NumPy

Phi Kappa Psi Fraternity | Finance Chair

January 2024 - Present

• Coordinated finances related to dues, rush, formals, fines, and any events for over 130+ members.

1st Place | VT Hacks X Hackathon

November 2022

• Navigrade placed 1st out of 350 participants in J.B. Hunt's challenge for 'Best Hack Implementing a Mapping API'.