Devansh Agarwal

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EDUCATION

University of Illinois, Urbana-Champaign (UIUC)
Bachelor of Science in Computer Engineering, Minor in Statistics, ***James Scholar*** May 2027

Nanyang Technology University, Singapore (NTU)
Data Science and Artificial Intelligence (Summer Program) July 2024

- Gained hands-on experience with machine learning techniques and learned fundamental AI concepts.
- Developed skills in data handling, exploratory data analysis, and data visualization.

Relevant Coursework:
Database Systems | Algorithms and Models of Comp | Data Structures | Systems and Programming | Analog Signal Processing
Linear Algebra | Probability with Engineering | Digital Systems | Electronics | Artificial Intelligence | Discrete Mathematics
Quantum Physics | Differential Equations | Applied Machine Learning | Web Programming

TECHNICAL SKILLS

Python | C | Java | C++ | SQL | Analog Electronics | MongoDB | Neo4j | JavaScript | NodeJS | ReactJS | Docker | FME | Tableau | AWS | Data Analytics | R | TypeScript | HTML | S3

WORK EXPERIENCE

Levrx Technologies Inc. May 2025 – August 2025
Software Engineering Intern *Troy, New York*

- Built a Spring Boot-based Archiving Service to automate data retention and deletion across large databases.
- Saved over $10,000 in data storage costs by archiving old records and reducing DB load across all schemas.
- Optimized slow stored procedures through performance testing, improving query speed by 40%.
- Built interactive business metrics dashboard using FME and Tableau, enabling real-time trend analysis.

InGO Electric
Intern *Bangalore, India*

- Provided technical support, resolving software and hardware issues for 50+ users.
- Improved customer support through enhancements to OpsPod tracking software, reducing response times.
- Implemented automated alerts in monitoring software, improving customer notifications.
- Analyzed scooter telemetry data to develop heat maps for optimal charging station locations.
- Recommended a battery inspecting station based on research into BMS and EV fires in India.

PROJECTS

JobGenie – AI-Powered Career Companion | TF-IDF, SQL | Python February 2025 - May 2025

- Built JobGenie, an AI tool that automates job and internship searches by extracting resume features and matching them with job listings using TF-IDF.
- Designed and managed a SQL database to store user data, parsed resumes, job posts, and application history.
- Delivered personalized job recommendations, and advanced filtering options for users.

15-Puzzle Solver | Graph Search Algorithms | C++ November 2024 - December 2024

- Engineered an advanced 15-puzzle solver leveraging both A* and BFS algorithms to traverse an implicitly defined graph, significantly optimizing search efficiency.
- Developed a memory-efficient puzzle state representation and integrated Manhattan distance heuristics, achieving solution times up to 85% faster than conventional approaches.

AM Radio Receiver | Signal Processing & Electronics September 2024 - November 2024

- Engineered a high-performance AM radio receiver incorporating RF amplification, mixing, filtering, and demodulation, achieving a 25% boost in reception clarity.
- Designed and validated critical subsystems—Envelope Detector, IF, and Audio Amplifiers—resulting in a 30% improvement in signal-to-noise ratio and overall audio fidelity.