

RAASHIL AADHYANTH

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EDUCATION

Pace University, Master of Computer Science | GPA: 3.97 / 4.0

Manhattan, NY (2025)

EXPERIENCE

Metropolitan Transportation Authority (MTA)

September 2024 - Present

Software/R&D Intern

New York City

- **Designed and built** "MTA Nexus," a comprehensive web app for New York City subway and bus users: Led the design and development using React, TypeScript, and Next.js, implementing features such as dynamic route planning, real-time transit updates, and intuitive UX to simplify daily commuting. Integrated APIs for live data, ensuring reliable and up-to-date information for thousands of users. ([Link](#))
- **Developing Interactive Dashboards Using React:** Designed and developed user-friendly, front-end dashboards using React to provide real-time, actionable insights tailored to the General Superintendent's specific needs (ongoing project). Integrating LLM functionality to enable natural language queries within the dashboard, aiming to make data exploration more intuitive and empower leadership with faster, data-driven decision-making capabilities.
- **Enhanced Enterprise Asset Management (EAM) Software Utilization:** Supported supervisors in optimizing the use of EAM software by streamlining processes and improving operational efficiency. My efforts led to a 50% reduction in task completion time, enabling the team to focus on higher-priority tasks. I took pride in identifying pain points and implementing solutions that enhanced workflow automation and effectiveness & Leveraged analytics to create dashboards that streamline operations and enhance decision-making.
- **Leading 3D Printing R&D Initiative:** As the only intern on the R&D team, currently researching and developing a 3D printable prototype station's globe (A unique and iconic underground station entrance object) projected to save MTA over \$500,000. This innovative solution leverages additive manufacturing technology to reduce production costs while maintaining quality and functionality.

Capgemini

Software Engineer (Full-time)

October 2022 - August 2023

- Engineered comprehensive crop management web application with React.js, streamlining sales process for farmers & consumers by implementing Redux for state management & Axios for robust API communication.
- Optimized **React components and templates**, reducing cloud storage usage and supporting the organization's **carbon neutrality goals**.
- Collaborated with cross-functional teams to gather requirements, conduct user testing, and implement feedback, resulting in a 25% increase in customer satisfaction scores. Integrated **REST APIs** for seamless data retrieval, enabling real-time updates on crop availability and pricing, which enhanced the platform's responsiveness and reliability. Utilized **AWS services** to deploy and maintain the application, ensuring high availability and scalability that supported a 40% increase in user traffic without performance degradation.
- Fostered a culture of quality and collaboration by conducting code reviews, implementing best practices in software development, and mentoring junior developers on Java and MongoDB. Participated in Agile ceremonies to enhance team collaboration and improve delivery timelines by 15%, while analyzing user data and performance metrics to guide feature enhancements and optimizations.

Java EE Full Stack Intern

April 2022 - October 2022

- Built **Spring Boot microservices** for MongoDB data retrieval/storage, exposing RESTful APIs for front-end integration, enhancing end-user performance. Containerized with **Docker**, deployed on NGINX, cutting deployment time by 40% and benefiting development teams.
- Implemented automated testing strategies for the **microservices**, using JUnit and Mockito, which improved code reliability and reduced bugs in production by 30%, ensuring a smoother user experience and faster deployment cycles.

ACADEMIC / PERSONAL PROJECTS

Cogniscruit

January 2025 - Present

- Developed an AI-driven interview question generation tool using **Large Language Models (LLMs)** such as **OpenAI** and **LangChain**. The system extracts and processes candidate data from **resumes**, **LinkedIn profiles**, and **GitHub repositories**, along with job descriptions, to generate tailored interview questions. The backend is built with **Node.js** and **Python**, integrated with **MongoDB** for data storage, and utilizes **Confluent Cloud (Kafka)** and **Flink SQL** for real-time data streaming and processing.

- Developed frontend with **Next.js** and **React**, provides an interactive UI for recruiters to customize and manage questions. The project focuses on optimizing AI workflows, ensuring seamless data flow between Kafka topics and AI agents, and continuously improving question relevance through feedback-driven model refinement.

Face Verification and Recognition

May 2024-August 2024

- Developed an end-to-end facial verification and recognition system using deep learning techniques, achieving 99% accuracy in face detection, 95% precision in face alignment, and 92% accuracy in feature vectorization.
- Implemented and optimized various Machine Learning models including Convolutional Neural Networks (**CNN**), Support Vector Machines (**SVM**), and **K-Means** Clustering, demonstrating proficiency in advanced **Computer Vision** algorithms.
- Integrated the ML model into a real-time web application, showcasing practical application of AI in software engineering and full-stack dev.

Biometric Identification Scheme in Cloud Computing - Improved fingerprint algorithm accuracy by 4% using AES & SHA-1, securing data storage on Ethereum blockchain with use of computer science fundamentals approach (data structure, OOPS).

TECHNICAL SKILLS & CERTIFICATIONS

Programming Languages: Java, Python, SQL, HTML JavaScript, Typescript, CSS, Spring boot | **LLMs** : Llama, Open AI, Groq

Cloud Services: AWS (EC2, S3, Lambda, ECS), Docker, Elasticsearch | **Database Management:** MongoDB, Firebase, Neo4j, Zilliz

Technologies & Tools: Microservices | **Frameworks:** ReactJS, NextJS | **Version Control:** Git, GitHub, GitLab

Project Management: Agile, Jira, Slack | **Certifications:** AWS Certified Cloud Practitioner, Bloomberg Certification(BMC)