MEGHNA AGRAWAL

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EDUCATION

Stevens Institute of Technology, Hoboken, NJ   **August 2023 - May 2025**
Master of Science in Computer Science | CGPA: 3.95/4.0
Coursework: Web Programming, Database Management Systems, Agile

Manipal University Jaipur, Jaipur, India   **August 2017 - July 2021**
Bachelor of Engineering in Information Technology

PROFESSIONAL EXPERIENCE

Accenture, Gurugram, India   **May 2021 - July 2023**
Software Engineer - Application Development Associate
- Designed a compliance web app for a major US insurance firm using AWS Lambda, API Gateway, and DynamoDB, ensuring 100% database compliance for 900+ app.
- Migrated a legacy CRM Order Processor to Azure cloud redesigned using Spring Boot (REST APIs), Oracle SQL, and AngularJS, achieving 99.9% uptime and increasing operational efficiency by 14%.
- Built CI/CD pipelines with Azure DevOps, cutting deployment times by 40% and lowering post-release bugs by 25%.
- Implemented OAuth and IAM authentication for a compliance web app, reducing unauthorized access by 30%.
- Mentored three junior developers at Java backend development for a CRUD application, enhancing team productivity and achieving a 10% faster code review cycle.

Manipal University, Jaipur, India   **January 2021 - May 2021**
Undergraduate Researcher
- Developed a new algorithm for drowsiness detection using facial analysis to enhance driver safety, and was awarded a patent by the Government of India.
- Built a data pipeline accommodating over 60 GB of video data inputs, and performed preprocessing on video extracted frames to enhance feature extraction and improve model generalization.
- Researched six different machine learning algorithms focusing primarily on precision enhancement resulting in 35% reduction in false positives.

RESEARCH AND PATENT

Driver Fatigue Discernment System
Secured Indian patent for an algorithm detecting drowsiness through facial analysis, enhancing driver safety, with findings published in two international research papers at IEEE conference.

PROJECTS

Finance Chatbot with RAG   **December 2024**
- Created a finance chatbot using Python, Flask and OpenAI's APIs in a team of 2 allowing users to to analyse real-time financial data via a chatbot like user interface.

Harmonize, Stevens Institute of Technology   **December 2024**
- Developed a music-sharing platform using React, Node.js, MongoDB, GraphQL and Spotify API; implemented a caching strategy reducing page load times by 25%.

TopFlush, Stevens Institute of Technology   **September 2023**
- Created a restroom review platform with a responsive web app using EJS, Node.js, Express, and MongoDB; optimized the database schema, reduced database query response time by 20%.

SKILLS

Programming Languages: Java, JavaScript, Python, C, C++
Database Systems: MongoDB, DynamoDB, Redis, MySQL, PostgreSQL
Cloud: AWS, Azure
Messaging System: AWS SNS, AWS SQS, RabbitMQ, Apache Kafka
Web Technologies: NodeJS, Express, HTML, CSS, jQuery, Spring framework, React, EJS, Angular, GraphQL

LEADERSHIP AND EXTRACURRICULAR ACTIVITIES

- Event Producer for TEDx Manipal event by leading the stage design and backstage operations.
- Trained Indian classical singer, jazz dancer, skilled artist, and Certified Reiki Healer.
- Community Lead at NYC Tech & Beer Study Group.