AYUSH TIWARI

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EDUCATION

Aligarh Muslim University • Aligarh   *July 2017 - July 2021*
Bachelor of Technology, Computer Engineering   *CPI : 8.77/10*
Relevant Courses: Object Oriented Programming, Data Structure and Algorithms, Machine Learning, DBMS, OS

SKILLS

Programming Languages	Java, Python, C++, C#, JavaScript, SQL, Solidity, MySQL, Postgresql, MongoDB
Technologies	Angular, Spring Boot, Flask, .NET, Docker, Kubernetes, Jenkins, Azure, Kafka
AI/ML	Deep Learning, CNN, RNN, NLP, BERT, TensorFlow, Keras, PyTorch

WORK EXPERIENCE

UnitedHealth Group (Optum)   *March 2023 – Present*
Senior Software Engineer
- Developed highly scalable applications and microservices by optimizing the compute, infrastructure, and storage costs using Java Spring Boot, Spring Cloud, Angular, Docker, and Kubernetes.
- Led transition to Java-based claim report generation system with an enhanced multithreading and monitoring system.
- Designed data processing systems with Java, Kafka, and SQL Server.
- Mentored interns in developing an automated resume-screening application using NLP and Python.
- Developed an application to update Optum Logo Icons in PDF manuals, increasing efficiency by 90% using PyPdf library in Python, CNN architecture in Keras, and deployed as Flask API.

Software Engineer   *Sep 2021 – March 2023*
- Enhanced US healthcare applications for end-to-end claim processing pipeline, generating $200 million in revenue.
- Developed a Pending Claim Resolution project, reducing pending claims by 30%.
- Created an Admin Dashboard using Microservices architecture and Angular.
- Managed a team to migrate deployment processes to the CI/CD pipeline with GitHub and Jenkins.

Autonise   *Jan 2021 – Jun 2021*
Deep Learning Intern
- Developed a deep learning model for classifying raw speech signals into emotions with up to 98% accuracy.
- Enhanced model generalization using Self-Attention mechanisms and crafted features.

PATENT

Methods, Apparatuses, and Computer Program Products for Contextually Aware Debiasing
US Patent Appl. 18/523, 312   *[Patent](#)*
- Led implementation of a debiasing algorithm using the BERT model, reducing biased terms by 90%.
- Built a browser application for writing job descriptions with UHG's HR department.

ACADEMIC PROJECTS

- **Distributed Banking System:** Built a scalable online banking system with a microservices architecture using Java Springboot. Tech Stack: Java, Spring Boot, Spring Cloud, Netflix OSS, Kafka
- **Drowsy Driver Detection System For Road Safety:** Developed a system with 87.5% accuracy to alert drowsy drivers using Python and Keras. Tech Stack: Python, OpenCV, Keras
- **End-to-end Encrypted Chat Application:** Created a real-time encrypted chat application with Angular and Springboot. Tech Stack: Java, Javascript, Springboot, Angular, Websocket, AES Encryption

HONORS & CERTIFICATIONS

- 2nd prize in Optum(UHG) Hackathon for developing an AR application for ASD communication.
- Leetcode ([Top 2%](#)), Codeforces, GeeksForGeeks, Hackernoon: Solved 1500+ DSA problems
- Certification: Neural Networks & Deep Learning (deeplearning.ai), Blockchain Technology (Princeton University)