Ejaz Ahamed Shaik

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Education

North Carolina State University, Raleigh, NC
August 2023 - May 2025
Master of Computer Science
GPA: 4.0/4.0
Courses: Design and Analysis of Algorithms, Automated Learning and Data Analysis, Software Engineering, Computer and Network Security, Neural Networks, Object Oriented Development, Computer Graphics.

National Institute of Technology, Allahabad, India
July 2016 - May 2020
Bachelors of Technology in ECE
GPA: 8.7/10
Courses: Computer Programming, Data Structures and Operating Systems, Networks and Systems, Computer Architecture, Software Project Management, Machine Learning, Advanced Digital and Image Processing, Database Management.

Skills

Programming Languages: Java, C/C++, Python, SQL, HTML, CSS, PHP, JavaScript, Bash.
Databases and Operating Systems: PostgreSQL, MySQL, MongoDB, Linux, macOS, Windows, Ubuntu, CentOS.
Tools/Frameworks: Spring boot, RabbitMQ, Apache Kafka, Splunk, Git, Linux, Docker, CI/CD, Blockchain, Tensorflow, CNN, NLP, Rest API, Jenkins, Maven/Gradle, Uipath, Automation Anywhere, Tableau, Streamlit, NPM, NodeJS, ReactJS, GPT-3 API, Kubernetes, Redis

Professional Experience (3 years)

Senior Software Engineer, *Ultimate Kronos Group, India*
June 2022 - July 2023
- Upgraded messaging framework to enhance RabbitMQ resilience by **30%** through a shift to quorum queue model.
- Achieved a **25%** reduction in operational costs by optimizing messaging framework, eliminating MuleSoft dependency and engineered a **40%** efficiency boost in Microsoft SQl Server data processing.
- Enhanced security post UKG Ransomware attack, Implemented robust password policies and advanced security features in the legacy ecosystem.

Software Engineer, *Ultimate Kronos Group, India*
August 2020 - June 2022
- Designed/Implemented versatile messaging framework, decoupling systems from RabbitMQ. Enabled parameterization for RabbitMQ, Kafka, Google Pub/Sub, etc.,
- Key member of 3 person team automating daily monitoring of RabbitMQ, Redis, Ppas microservices, saving about 7.5K person-days/year through RPA implementation across Dimension.

Publications and Projects

SEEDGuard.AI
Python, Tensorflow, Pytorch, Generative AI, LLM
- Lead developer in SEEDGuard.AI project, driving enhancements in trustworthy AI for software engineering with a specific emphasis on data qualities related to code generation in large language models (LLM).
- Engaging with Dr. Bowen Xu and a global community to address critical data quality issues, actively contributing to open-source developments, and influencing the trajectory of AI in SE, particularly in the domain of LLM-driven code generation.

Retrieval Augmented Generation (RAG)
Python, Tensorflow, Redis, PostgresSQL
- An end to end approach involving an information retrieval component utilizing PostgreSQL for data storage and Redis for caching to enhance retrieval processes.
- The user query along with retrieved information are give to (Large Language Model) LLM to generate better response, this strategy addresses both LLM hallucinations and out of data training data of current generative models.

A New Mask R-CNN Based Method for Improved Landslide Detection
Python, Tensorflow, CNN, Object detection
- Developed an innovative approach for landslide detection harnessing the power of Mask R-CNN's pixel-based segmentation to identify object layouts. Employed transfer learning to effectively train the model.
- https://ieeexplore.ieee.org/document/9373966

Telecom Customer Churn Prediction
Python, Tensorflow, Machine Learning, Git, Github
- Preprocessed a dataset of 7,000 records using diverse standardizing and one-hot encoding techniques.
- Extracted relevant fields and trained models with various machine learning algorithms, systematically comparing accuracy and AUC-ROC values.
- Attained an **81.5%** accuracy using a hard voting classifier with the best-performing algorithms.