MUSHRUF SHAIK
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LinkedIn | GitHub

PROFESSIONAL SUMMARY

Master's student in Computer Science with a strong foundation in machine learning, software development, and cloud technologies. Proven ability to develop innovative solutions through research and hands-on projects. Seeking a challenging Data Engineer / Machine Learning Engineer role where I can apply my technical skills and contribute to impactful projects.

EDUCATION

Kennesaw State University, Marietta, GA — **Aug 2023 – Dec 2024**
Master of Science in Computer Science — **GPA: 3.75/4.0**
Relevant Coursework: Data Structures & Algorithms, Machine Learning, Operating Systems, Database Systems, Distributed Computing

M.J.R College of Engineering and Technology (JNTUA), India — **June 2018 – July 2022**
Bachelor of Technology in Computer Science & Engineering — **GPA: 3.29/4.0**

SKILLS

Programming Languages: Python, Java, C++, SQL, HTML, CSS, JavaScript
Frameworks & Libraries: ReactJS, NodeJS, Spring Boot, OpenCV, NumPy, Matplotlib
Cloud Platforms & Tools: AWS (EC2, RDS, Lambda), Azure, Tableau, Power BI, Git, JIRA
Databases: MySQL, MongoDB, Oracle
Machine Learning & AI: LSTM, Time Series Analysis, Decision Trees, KNN, NLP Basics
Core Concepts Applied: Distributed Systems (multi-tier architecture for airline system), Data Analysis (preprocessing financial data), Model Deployment (serverless with AWS Lambda)

EXPERIENCE

NLP Assistant
AIET Lab, Kennesaw State University — **June 2024 – December 2024**

- Conducted research on Natural Language Processing (NLP) and Large Language Models (LLMs).
- Developed Python-based AI solutions, focusing on scalability and ethical model deployment.

Machine Learning Assistant
LASER Lab, Kennesaw State University
Jan 2024 – May 2024

- Built an image processing pipeline with OpenCV, achieving 90% color isolation accuracy.
- Preprocessed real-time datasets for machine learning model training.

Lab Assistant / Python Tutor
College of Computing and Software Engineering (KSU) — **Aug 2023 – December 2023**

- Provided guidance to 100+ students on Python programming, boosting assignment scores by 15%.
- Led workshops on data structures and algorithms, improving student coding proficiency.

Python Intern
Avishkar Tech Solutions, Hyderabad, India (Remote) — **June 2021 – July 2021**

- Developed a machine learning model for airfare prediction, reducing Mean Absolute Error (MAE) by 5%.
- Applied Decision Trees, KNN, and Linear Regression; implemented one-hot encoding and outlier handling.

RESEARCH & PUBLICATIONS

House Price Prediction Using Machine Learning
Published in *International Journal of All Research & Scientific Methods*

- Developed a machine learning model to predict house prices using Regression algorithms.
- Conducted feature engineering and data preprocessing to enhance model accuracy.
- Analyzed performance metrics (MAE, RMSE) and documented findings for peer-reviewed publication.

PROJECTS

Scalable Airline Reservation System (Java, MySQL, AWS)

- Developed a full-fledged airline booking system using Java with a multi-tier architecture for scalability.
- Designed and optimized MySQL databases with indexing and caching to improve query response times.
- Deployed application on AWS EC2 and RDS, enabling real-time booking, ticket management, and inventory control.
- Handled concurrent user sessions and secure transaction simulations across distributed components.

Stock Price Prediction Model (Python, LSTM, Time Series Analysis)

- Built a stock price prediction model using LSTM neural networks, focusing on time-series data forecasting.
- Collected and preprocessed financial data from Yahoo Finance (>50,000 data points) using Pandas and NumPy.
- Engineered custom features and performed hyperparameter tuning to improve model performance and reduce error rates.
- Demonstrated hands-on experience in deep learning models applied to real-world financial datasets.

Online Book Store Platform (Java, ReactJS, MongoDB, AWS Lambda)

- Developed a microservices-based online bookstore with a Java backend, ReactJS frontend, and MongoDB database.
- Integrated AWS Lambda for serverless payment processing, improving system scalability and fault tolerance.
- Implemented full-text search capabilities for easier book discovery based on titles, authors, and categories.
- Designed AI-powered recommendation algorithms to dynamically adjust book prices based on user behavior and trends.

CERTIFICATIONS

• AWS Data Engineer Associate	AWS
• Python Basic Certification	HackerRank
• Python for Everybody	Coursera
• IBM Python 101 for Data Science	IBM
• Accenture Developer Program	Forage
• Excel Basics	Alphite Learning

LEADERSHIP & ACTIVITIES

• Google Hash Code Hub Organizer	2021
• College Coding Club President	2019
• Class Representative	2019–2021
• College Event Coordinator	2020–2022

Portfolio Projects:

GitHub - Airplane Fare Prediction
GitHub - Airlines Reservation System
GitHub - Online Book Store