

Jaswanth KS

Software Engineer

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[LinkedIn](#) | [Portfolio](#) | [HackerRank](#)

Personal Profile

A dedicated Software Engineer with nearly 2 years of hands-on experience in **Python**, **AWS**, and **DevOps**, coupled with a **MSc in Data Science and AI** from the University of Liverpool. Demonstrated expertise in **debugging**, **problem-solving**, and developing optimised solutions that enhance operational efficiency. Now seeking a role where I can leverage my technical skills and academic background in **data science** to contribute to innovative projects and deliver data-driven insights, while continuing to grow in areas like **artificial intelligence** and **cloud engineering**.

Education

MSc in Data Science and Artificial Intelligence, Merit | University of Liverpool | Sept 2023 – Sept 2024

- **Modules:** Applied AI, Mathematics & Statistics for AI Database & Information Systems, Data Mining.
- Developed expertise in **machine learning** and **data analytics** with a focus on **Python**.

Bachelor of Science, Distinction | Sri Venkateswara University, India | Jun 2018 – Sept 2021

- Relevant coursework: Computer Science, Mathematics, Physics.

Experience

Growz Software Solutions - Software Engineer

Bengaluru, India | Nov 2021- Aug 2023

- Led the migration of legal data to **AWS**, improving system reliability for users by **30%** and updating infrastructure.
- Automated secure data transfers using **Python** and **SQLAlchemy**, ensuring data integrity between on-premises systems and **AWS RDS**.
- Architected microservices with **AWS Lambda**, reducing manual intervention by **45%** and enabling scalability of **API requests**.
- Optimised system performance by **containerising applications** with **Docker** and streamlining deployments through automated **CI/CD pipelines** via Git.
- Championed **Test-Driven Development (TDD)** practices, achieving **95%** code coverage using **Pytest**, significantly improving code quality and reliability.

Skills Used: **Python, AWS (Lambda, Glue, DynamoDB, SQS, RDS, S3, EC2), SQLAlchemy, PostgreSQL, Docker, CI/CD, TDD, Pytest.**

Skills

- **Programming Languages:** Python, SQL, Java
- **Cloud/DevOps:** AWS (Lambda, S3, RDS, Glue, EC2, CloudFormation, ECS, EKS), Terraform, Docker, CI/CD, Jenkins, Ansible
- **Web Development:** RESTful APIs, Django, Django Rest Framework, FastAPI, Flask
- **Databases:** PostgreSQL, MySQL
- **Machine Learning:** TensorFlow, Keras, Scikit-learn
- **Data Analysis:** Pandas, NumPy, Matplotlib, Plotly
- **Tools/Version Control:** Git, GitHub, Postman (API Testing)

Projects

Building a National Lottery Profit/Loss Simulator (Dissertation)

- Built a full-stack lottery simulation platform using **Python (Flask)**, **SQLAlchemy**, and **SQLite**, supporting 5 game formats and 100+ countries with dynamic currency and ticket pricing.
- Engineered secure backend architecture with **user authentication**, session management, input validation, and country-specific game logic.
- Developed **REST**-style routes and reusable modules to handle lottery draws, prize logic, and simulations across thousands of iterations.
- Integrated **Plotly Express** for real-time backend driven data visualizations (profit/loss trends, total spent vs won), enhancing analytical clarity.
- Optimized systems performance to handle up to **50,000+ simulations**, tested across major browsers.

Technologies Used: **Python, Flask, SQLAlchemy, SQLite, Plotly Express, Bootstrap, JavaScript**

Stock Market Time Series Forecasting

- Developed a **machine learning model** for time series forecasting, leveraging **ARIMA, SARIMA, and LSTM** to predict stock price movements.
- Analysed stock price data using **Pandas** and evaluated model predictions against real market data to fine-tune accuracy.
- Designed and implemented an interactive **UI** using **Flask** and **HTML/CSS** to visualise stock predictions, allowing users to dynamically interact with the data and forecast results.
- Integrated **Plotly** for real-time charting of stock prices, enabling seamless data exploration and enhanced decision-making for users.

Technologies Used: **Python, Pandas, NumPy, Statsmodels, TensorFlow/Keras, Scikit-learn, Flask, HTML, CSS**

Certifications

- Essentials in Github Professional Certificate - **GitHub**.
- Programming with Python Professional Certificate - **OpenEDG Python Institute**.
- Learning Python (2021) - **LinkedIn**.
- Docker Foundations Professional Certificate - **Docker**.

Activities

- Led a team of 5 to secure a **top 3 finish** in a 24-hour hackathon, showcasing innovation and teamwork.
- Presented a technical paper at **SIGMOID-2K19**, effectively communicating complex concepts to a technical audience.

Languages

- **English:** Professional proficiency
- **Telugu:** Native proficiency