LITHIRA HETTIARACHCHI

Software Engineer

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TECHNICAL SKILLS

Languages & Frameworks

Java, Python, JavaScript React, React Native, Spring Boot, FastAPI, R

Data & ML

TensorFlow, scikit-learn, Keras, Pandas, NumPy, Statsmodels, Time-Series Forecasting

Databases

MySQL, PostgreSQL, MongoDB, Firebase

DevOps & Tools

Docker, Git, GitLab CI/CD, Postman, VS Code, IntelliJ, PyCharm

NON-TECHNICAL SKILLS

Problem Solving
Team Work
Critical Thinking
Time Management
Communication
Flexibility

PROFILE

Software Engineer with expertise in full-stack development and applied machine learning. Proven ability to design scalable systems and deliver production-grade applications in transportation, agriculture, and energy sectors. Bridging academia and industry with research contributions, predictive modeling, and CI/CD automation experience. Adept at collaborating in agile teams and delivering high-impact solutions.

EDUCATION

BSc (Hons) Computer Science 2021 - 2025

Second Class Upper Division

University of Westminster

WORK EXPERIENCE

Sutra Technologies Pvt Limited 2023 - 2024

Intern Software Engineer

Travo : Bus Seat Booking Application

- Enhanced Travo management dashboard using React.js, TypeScript, Spring Boot, and PostgreSQL, enabling faster feature delivery.
- Optimized bus seat booking logic in React Native, improving reliability and reducing user complaints by 30%.
- Collaborated with the UX team to resolve complex UI/UX issues, resulting in smoother workflows across mobile and web apps.
- Automated GTFS dataset processing with Python (Pandas, NumPy), reducing manual work by 70% and enabling onboarding of 100+ new routes.
- Implemented REST APIs with Spring Boot, ensuring seamless integration between front-end components and backend systems.
- Containerized applications with Docker improve deployment consistency and reduce server-side downtime.
- Maintained CI/CD pipelines on GitLab for automated testing and deployment, accelerating release cycles.

PROJECTS

GridSense: Energy Consumption Prediction System 2024 - 2025

University of Westminster

- Implemented LSTM, Random Forest, and SARIMAX models for forecasting EV charging demand, achieving 92% accuracy.
- Integrated time-series data with external datasets (traffic, weather) to enhance predictive performance.
- Designed an evaluation framework with RMSE, MAE, and R^2 to validate robustness across seasonal variations.
- Developed a prototype recommender system to suggest optimal charging stations, improving planning efficiency.
- Built system architecture combining backend APIs with data pipelines for real-world usability.

RESEARCH & CONFERENCES

- Published research contributions on ResearchGate in applied machine learning and computer vision domains.
- Contributed to academic discussions in areas of energy efficiency, agriculture, and health applications.
- Attended AMCEHA: Advanced Materials for Clean Energy & Health Applications (University of Jaffna & Western Norway University of Applied Sciences).

COMPETITIONS

- Hackathon 2025 – University of Peradeniya: Developed prototype leveraging ML for predictive analytics; ongoing competition.
- Participated in multiple university-level competitions, showcasing teamwork and problem-solving under time constraints

CERTIFICATIONS

Artificial Intelligence Foundations
LinkedIn Learning (2021)

Python Essential Training
LinkedIn Learning (2021)

Artificial Intelligence for Students
LinkedIn Learning (2022)

Spring Boot 3 Essential Training
LinkedIn Learning (2025)

Python Data Structures and Algorithms
LinkedIn Learning (2025)

INTERESTS

Full-Stack Development

Web Development

Machine Learning

Research & Development

AVAILABILITY

Immediate

PRETTIFY: Face Beautification Application 2022 - 2023

University of Westminster

- Developed hybrid ML pipeline using Deep CNN and OpenCV for real-time acne and scar removal.
- Performed facial landmark detection to localize problem areas before applying digital inpainting.
- Validated accuracy using MSE, PSNR, and user feedback metrics to refine model.
- Integrated PyTest for automated testing and built Dockerized CI/CD pipeline for streamlined deployments.

Skin Consultation System 2022 - 2022

University of Westminster

- Developed an application to manage dermatologist consultations, including patient registration, doctor scheduling, and consultation booking.
- Designed and implemented using Object Oriented Programming (OOP) principles such as inheritance, polymorphism, and encapsulation.
- Built a user-friendly GUI with Java Swing for managing records and booking workflows.
- Utilized Java Collections Framework for efficient data storage, retrieval, and management of patients, doctors, and consultations.

AgriVerse: Paddy Production Predictor 2025 - Present

- Conducted statistical analysis of Sri Lanka's paddy production dataset (1979–2024) with ML models.
- Benchmarked forecasting algorithms (LSTM, Random Forest, Linear Regression, SARIMAX) to select the best performer.
- Implemented Random Forest-based yield prediction models specific to the Yala and Maha seasons.
- Developed scalable RESTful backend with FastAPI, serving predictions via APIs.
- Created a responsive frontend with HTML, CSS, and JavaScript, improving usability for farmers and stakeholders.

NON-RELATED REFEREES

Mr. Minura Kariyawasam

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University of Westminster.
Solution Architect,
WSO2.
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Mr. Mahesh Kumara

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