RAVINDU NETHSARA

FULL STACK SOFTWARE ENGINEER

Udawalawa, Sri Lanka | ravindu15nethsara@gmail.com | +94 71 287 1972 | Portfolio | LinkedIn | GitHub

Full Stack Software Engineer with experience in web application development, AI/ML solutions, and enterprise software systems using Python, ReactJS, Django, .NET Core, TensorFlow, SQL, and MongoDB. Experienced in full-stack development, REST APIs, machine learning, computer vision, and software testing. IEEE research publication author with strong problem-solving, analytical, and technical mentoring skills.

TECHNICAL SKILLS

Python, Java, C, C++, C# JavaScript, R, ReactJS, NextJS, HTML5, CSS3, Boootstrap, TailwandCSS	Django, Flask, .NET Core, ASP.NET, REST APIs, TensorFlow, Keras, OpenCV, YOLOv8, CNN, LSTM, Machine Learning, Deep Learning, Computer Vision	MySQL, SQL Server, SQLite, MongoDB, Git, GitHub, JIRA, Postman, Visual Studio, VS Code, Docker, AWS

PROFESSIONAL EXPERIENCE

Software Engineer Intern **Feb 2021 – Feb 2022**

Ceycore Global Solutions (PVT) Ltd, Gampaha, Sri Lanka.

- Worked on ERP system development using .NET Core, ReactJS, SQL, and Bootstrap.
- Developed frontend and backend functionalities for enterprise applications.
- Performed software testing, debugging, and issue resolution.
- Worked in Agile development environments using JIRA.

Academic Instructor **Sep 2022 – Sep 2025**

Sri Lanka Institute of Information Technology (SLIIT), Malabe, Sri Lanka.

- Conducted programming and software engineering-related modules for undergraduate students.
- Taught C, C++, Java, Python, Computer Networks, Mobile App Development, and R programming.
- Guided students in software development projects and technical implementation activities.

Independent Software Developer & Technical Research Consultant **Self-Employed | 2022 – Present**

Self-Employed | Expert Assignment Help Services

- Independently operate a software development and technical consulting service, supporting clients across Sri Lanka, Australia, New Zealand and the United Kingdom.
- Completed 50+ technical and research projects, including 30+ client engagements across diverse technology domains.
- Independently manage the software development lifecycle, including requirements analysis, system design, development, implementation, testing and debugging.
- Develop full-stack web applications, RESTful APIs, Python applications and AI/ML solutions involving machine learning, deep learning and computer vision.
- Work with Python, JavaScript, TypeScript, React.js, Next.js, Django, Flask, .NET Core, TensorFlow and Amazon Web Services (AWS), alongside cybersecurity and cloud computing technologies.

PROJECTS

Audio Confidence Classification System **Python, Flask, TensorFlow, Librosa**

- Developed a real-time speech confidence prediction system using deep learning.
- Implemented Bidirectional LSTM and Conv1D models for audio classification.
- Integrated real-time audio upload and prediction workflows.

Facial Recognition Attendance System **Python, Django, OpenCV, Django REST Framework**

- Developed a facial recognition-based attendance management system.
- Implemented real-time face detection and attendance tracking features.
- Added dashboard filtering and CSV export functionalities.

YOLOv8 Object Detection Web Application **Python, Django, YOLOv8, OpenCV**

- Developed a real-time object detection application using YOLOv8.
- Implemented image upload, object detection, and bounding box visualization.

Handwriting Digit Recognition System **Python, Streamlit, TensorFlow**

- Built a CNN-powered handwritten digit recognition application.
- Implemented image preprocessing and probability-based prediction visualization.

Posts Manager CRUD Application **Next.js, TailwindCSS, Prisma, SQLite**

- Developed a responsive CRUD application using Next.js App Router.
- Implemented image uploads, filtering, and dark/light theme support.

EDUCATION

MSc in Information Technology (Sri Lanka Institute of Information Technology) **2023 – 2025**

BSc (Hons) in Information Technology (Sri Lanka Institute of Information Technology) **2018 – 2022**

MDiploma in English (Sabaragamuwa University of Sri Lanka) **2018 – 2019**

PUBLICATIONS

Withana, R.D.K., Fernando, W.S.C.S., Nethsara, V.R., Jayasinghe, N.B.A.C.T., Lokuliyana, S.L., and Kuruppu, T.A., “ServPort: Process Reengineering in Optimization of the Process in Vehicle Service Station,” 2022 International Congress on Human-Computer Interaction, Optimization and Robotic Applications (HORA), IEEE, 2022. https://doi.org/10.1109/HORA55278.2022.9800055

Dabare, C., Wijegunasinghe, Y., Nethsara, R., Weerakoon, S., and Wickramarathne, J., “EduNova: An Adaptive Gamification-Driven Framework for Enhancing Learner Engagement and Retention in Digital Education,” 2025 7th International Conference on Advancements in Computing (ICAC), IEEE, 2025. https://doi.org/10.1109/ICAC69156.2025.11361483

Dabare, C., Wijegunasinghe, Y., Herath, H., Nethsara, R., and Jayasinghe, P., “Framework for Ethical Governance of Autonomous AI Systems: Balancing Innovation, Accountability, and Risk Management,” 2025 7th International Conference on Advancements in Computing (ICAC), IEEE, 2025. https://doi.org/10.1109/ICAC69156.2025.11361489

CERTIFICATIONS

Career Essentials in Generative AI by Microsoft and LinkedIn, Prompt Engineering with ChatGPT, Artificial Intelligence (AI), Automated Software Testing, Software Testing Foundations: Transitioning from Manual to Automation, Computer Ethics

ADDITIONAL INFORMATION

Strong interest in Artificial Intelligence, Full Stack Development, Machine Learning, and Software Engineering with experience in academic research writing, technical mentoring, and software project implementation. Passionate about developing scalable software solutions, AI-powered applications, and modern web technologies while continuously enhancing technical and problem-solving skills.