

NIMSHA FERNANDO

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PROFILE SUMMARY

Dedicated final-year Software Engineering student with a strong interest in research, innovation, and emerging technologies. Eager to contribute to academic and applied research projects by leveraging skills in AI, machine learning, and software development. Committed to analytical problem-solving, teamwork, and producing meaningful outcomes that support ongoing research initiatives and knowledge advancement.

EDUCATION

BEng (Hons) Software Engineering - Reading 2023 – 2026

Asian Pacific Institute of Technology (APIIT), Colombo, Sri-Lanka

University Diploma - Science, Computing / IT - High Distinction 2021 – 2022

Australian College of Business and Technology (ACBT), Colombo, Sri-Lanka

Colombo South International College (CSI College) 2007 – 2021

- Completed Pearson Edexcel International GCSE (Ordinary Level Examination)
- Completed Pearson Edexcel International Advanced Level (A-Level Examination)

WORK EXPERIENCE

Research Assistant (Intern) **APIIT Lanka (Pvt) Ltd- Colombo, Sri-Lanka** Nov 2025 – Present

- Gained hands-on experience in academic research writing, drafting literature review and review papers using LaTeX.
- Applied systematic review methodologies (PRISMA), including study screening, eligibility assessment, and synthesis under supervision.
- Learned the academic publishing workflow, including journal selection, manuscript preparation, plagiarism checks, and peer-review processes.
- Participated in research meetings with academic staff, contributing to discussions on research scope, methodology, and paper structure.
- Assisted in preparing Software Requirements Specification (SRS) documents for academic and internal projects.
- Supported requirements elicitation and documentation of functional and non-functional requirements for internal academic systems.
- Contributed to technical documentation and research summaries, improving clarity and alignment with research objectives.

Business Analyst (Intern) **Rootcode (Pvt) Ltd- Colombo, Sri-Lanka** Mar 2025 – Aug 2025

- Analyzed business problems and organizational workflows to identify gaps and opportunities for process and system improvement.
- Gathered and documented user, functional, and non-functional requirements through stakeholder discussions and requirement analysis.
- Researched appropriate tools, technologies, and methodologies to propose innovative, data-driven solutions.
- Designed wireframes and AI-based prototypes to visualize proposed solutions and support requirement validation.
- Prepared comprehensive documentation including user guides, user stories, requirement specifications, and research reports.
- Collaborated closely with QA and engineering teams to support solution implementation, testing, and refinement.
- Actively participated in Agile ceremonies such as sprint planning, daily scrums, and retrospectives, contributing to iterative development and continuous improvement.

- Wrote user stories, documented feature requests in ClickUp, and tracked progress using JIRA.
- Provided customer support via live chat and HubSpot, ensuring timely resolutions and bug reporting.
- Collaborated with the customer success team and participated in Azure DevOps standups to propose enhancements and conducted product training to other newly joined team members.

- Managed documentation to ensure accuracy and smooth operations.
- Resolved asset data issues, coordinated with the engineering team, and ensured KPIs were met.
- Designed smart kit solutions (e.g., Smart Pump Room and Electric Meter Kits) and collaborated with stakeholders to align operations with business goals.

PROJECTS

- **Phytosense (2025)** , Explainable AI-driven workflow that classifies medicinal plants from leaf images, retrieves their phytochemicals, and predicts EGFR inhibition potential for oral cancer treatment using **deep learning, QSAR modeling, and cheminformatics tools**.
- **SYOS Project (2025)** , Designed and implemented a **Java-based** POS and stock management system implementing **concurrency** and **design patterns** under **SOLID principles**.
- **Portfolio Website (2025)** ,Developed a modern portfolio website using **Next.js** , **Three.js** and **framer motion** with the usage of **React**.
- **Morse Code Translator (2024)**, Built a Morse code translator using a binary tree structure with added security through code reversal using **Java**.
- **Petfinity (2024)**, Developed an **agiled** based web app for pet care with features like profiles, appointment booking and analytics etc using **Laravel, JavaScript** and **MySQL**.
- **MintWatches (2024)**, A **Flutter** e-commerce app with a **Laravel** backend, featuring a responsive frontend and a custom admin panel for managing products, orders , users and reviews.
- **Responsive Turtle Website (2023)**, Developed a responsive website for turtle enthusiasts with a ticket booking management system using **HTML, CSS** and **JavaScript**.

EXTRA CURRICULAR

- **Medium Blog Writer**: Published articles on various topics.
- **Unilever Sparks Delegate (2024)**: Represented APIIT in Unilever's program as a delegate.
- **School Prefect & Football captain** : Led school football matches , events and maintained discipline.

SKILLS

- **Technical Skills**: Java, Python, SQL, PHP, Laravel, Flutter (Dart), C#, HTML, CSS, JavaScript, React, TensorFlow, PyTorch, Scikit-learn, XGBoost, OpenCV, Pandas, NumPy, Matplotlib, Seaborn, RDKit, Keras, LangChain, Flask, Streamlit , LaTeX (IEEE, ACM, Harvard formats).
- **Machine Learning & AI Expertise**: Deep Learning, CNNs (ResNet, EfficientNet, MobileNet), Transfer Learning, Ensemble Modeling, QSAR Modeling, Feature Engineering, Explainable AI (XAI), Computer Vision, Data Preprocessing, RAG (Retrieval-Augmented Generation), Cheminformatics.
- **Testing & Quality Assurance**: Unit & Integration Testing (JUnit 5), Mocking & Test Automation (Mockito, Parameterized Tests, Test Stubs), Static Code Analysis (SonarQube), API & Load Testing (Postman, JMeter).
- **Soft Skills**: Communication, Team Collaboration, Problem-Solving, Adaptability, Time Management, Leadership, Critical Thinking. Research Assistance & Academic Support, Literature Review & Scholarly Writing, Research Methodology & Critical Analysis, Technical Documentation
- **Tools & Platforms**: Visual Studio Code, Visual Studio, Microsoft SQL Server Management Studio,AWS, GitHub, IntelliJ IDEA, Android Studio, MySQL, JIRA, ClickUp, Figma, Overleaf , Google Collab.