KUSAL YAPA

UNDERGRADUATE STUDENT BENG (HONS) SOFTWARE ENGINEERING

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PROFILE

A passionate builder at heart, I'm Kusal Madura Yapa – a Software Engineering student at the University of Westminster, graduating in September 2026. My journey took flight during an internship at 99x in 2023, where I dove into the world of full-stack development and learned the power of teamwork and adaptability. I thrive in learning environments and am especially drawn to AI and machine learning. Whether it's crafting applications with React or experimenting with Python-based AI models, I enjoy turning ideas into code. I'm excited to contribute to a forward-thinking team as an intern or junior associate developer, where I can keep learning and creating.

SKILLS

Programming Languages - Java, Python, JavaScript, Swift

Frameworks & Libraries - Vue.js, Next.js Angular.js, React.js Nest.js

Tools & Platforms - AWS, Azure project management, GitHub, Figma, Xcod and VSCode

Data management: - MySQL, MongoDB, AWS RDS

AI - langchain, cursor.ai, Trae.ai

WORK EXPERIENCE

Trainee Software Engineer – 99X Technology Limited   July 2023 – July 2024 | Colombo, Sri Lanka

key responsibilities assigned

- Employee Upskilling and Reskilling Application

Contributed as a team member designing and developing an internal platform for employee skill development. My role involved ensuring seamless backend integration and creating a user-friendly experience, enabling employees to customize their learning journeys.

- AI Web Solutions Platform

Contributed to the development of a modern web application, utilizing Vue.js, and Nuxt.js. The application focused on form submissions, real-time validation, SEO optimization, and external platform integration. My role involved designing and optimizing the system to ensure scalability, user engagement, and visibility.

- AI - HR Bot

Worked on building an AI-powered HR Bot solution, integrating OpenAI for actionable insights and using vector databases for efficient data retrieval. My role involved enhancing decision-making through prompt engineering and streamlining HR tasks to improve overall efficiency.

- AI Research Hub

Contributed to the development of a platform showcasing AI research and case studies using Next.js and Vue.js. My role involved creating an intuitive and informative interface to highlight AI advancements and the company's global contributions.

- Optimaxer AI Platform

Contribute to the development of a platform with Agent Creation and the extraction tools with the AI-based Chat Bot, and this product Award winners as a team, contributed to the OPTIMAXER AI project, **NBQSA Merit Award Winner (2023), corporate research and development**

EDUCATIONAL BACKGROUND

University of Westminster colobarate Informatics Institute of Technology - IIT
BEng (Hons) Software Engineering | 2021 – 2026.

ESOFT Metro Campus
Diploma in Information Technology | 2020 – 2021

Richmond College
Biology,Chemistry, Physics | 2006 - 2019

ACHIEVEMENTS AND CERTIFICATES

2024-2025
- AWS Educate: Introduction to Generative AI
- AWS Educate Machine Learning Foundations
- AWS Educate Introduction to Cloud 101

2022-2023
- **NBQSA Merit Award Winner (2023) corporate research and development.** Marit Awards winners as a team
  Contributed to the OPTIMAXER AI project

2021-2022
- **OpenHack 2.0 Designathon 1st Runner up**
  - Design a prototype for a home energy management system using modern UI/UX concepts.
- **Finalist team member of RevolUX 2.0 UI/UX**
  - Designathon organized by AIESEC of the University of Colombo School of computing
- **Participated in IEEEXtreme 16.0 Programming** - Island 67 Organized by IEEE at IIT
- **Participant to hacktoberfest 2022**

CONTRIBUTED TOWARDS OTHER CROSS-FUNCTIONAL ACTIVITIES AND VOLUNTEERED

- Member of the Music Innovative : 2023 / 2024
- Volunteered the Xternship program held at IIT, Sri Lanka for BIS students in web development : 2023 / 2024
- STEM UP is a foundation to give support to students who are willing to be programmers 2022-2023

MODULSE AND MARKS

2ND YEAR

Object Oriented Programming	71
Database Systems	87
Software Development Group Project	73
Mobile Application Development	83
Machine Learning and Data Mining	40
Algorithms: Theory, Design and Implementation.	76

4TH YEAR

Mobile Native Application Development	73
Computer Science Final Project	57
Formal Methods	60
Concurrent Programming	51
Cyber Security	Pending

1ST YEAR - AVERAGE MARKS - 85.1%

PROJECTS

FYP - Final Year Project - Adaptive Gamification Model for Enhancing Programming Education
For my final year project, designed and implemented an adaptive gamification model aimed at enhancing programming education. This system utilized reinforcement learning (DQN) and basic gamification elements like feedback, Progress Bar leaderboards, and real-time feedback to personalise and adapt quizzes based on the learner's knowledge level and pace. The system dynamically adjusted the difficulty of programming tasks, offering personalised feedback to keep students engaged and motivated, reducing dropout rates, and improving knowledge retention. The learning experience for Gene Z students is normalised to game-like environments. The project aimed to bridge gaps in traditional programming education by making learning more engaging, interactive, and tailored to each student's needs.

SDGP - Software development Group project
TruAttend is an online virtual meeting platform that utilizes facial recognition and mobile phone detection for secure access and accurate attendance tracking. The platform features effective monitoring and comprehensive reporting to improve the quality of lectures and enhance the online learning experience for students.

REFERENCES

Pumudu Fernando
Senior Lecturer - Grade I | Course Leader
(BSc Computer Science, School of Computing **)**
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Yasiru Swaris
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MORE ABOUT ME

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