Ramith Rodrigo — Undergraduate

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○ Ramith-D-Rodrigo

Summary

Final-year undergraduate at the University of Colombo School of Computing with hands-on experience as a software engineer intern at a reputed company. A proactive and results-driven problem solver dedicated to productivity and quality with a strong foundation in software engineering, fullstack development, and computer graphics. Presently concentrated on developing expertise in the aforementioned fields and obtaining industry experience.

Experience

Software Engineering Intern *Nov 2023 – May 2024*
WSO2 LLC, Sri Lanka

- Contributed to the Ballerina programming language, implementing a feature to execute project tests in Docker containers.
- Improved Ballerina's testing functionality by finishing the project ahead of schedule for the internship.
- Experimented and discovered potential fixes for problems with resource loading in Ballerina tests.

Education

B.Sc. (Hons) in Computer Science *Apr 2021 – Present*
University of Colombo School of Computing, Sri Lanka

- Current GPA: 3.89/4.00
- Related Courses: Software Engineering, Compiler Theory, Computer Graphics, Game Development, Data Structures and Algorithms, Middleware Architecture, Object-Oriented Programming, Database I & II

Projects

Enhancing Web-based Augmented Reality (AR) Performance *Jun 2024 – Present*
Final Year Research

- Utilizing cutting-edge web technologies to create a high-performance web-based AR solution with an emphasis on reducing the performance difference with native AR applications.
- Carrying out thorough performance analyses to compare the suggested solution to accepted web-based AR methodologies.
- Using technologies: C++, WebGPU, WebAssembly, TypeScript, WebGL, WebXR Device API

Ballerina CLI Feature: "bal test –cloud=docker" *Dec 2023 – May 2024*
WSO2 Internship Project - Contributing to the Ballerina programming language

- Designed and implemented a CLI command to run Ballerina tests in Docker containers.
- Developed a technique to compile all of the Ballerina test dependencies into a single JAR file.
- Used dynamic class loading feature of Java to load Ballerina test dependencies in Docker containers efficiently.
- Validated the changes by writing unit and integration tests using TestNG framework.

"?D" *Jun 2023 – Dec 2023*
Single-Player 3D Video Game, where rules are based on XYZ axes in 3D world

- Used Unity to create a 3D game for a project at university.
- Implemented features including bespoke custom enemy AI controllers, level-based rules, distinct save checkpoints, and various camera perspectives.

Postgraduate Programme Review System *Jun 2023 – Oct 2023*
Quality Assurance Council, University Grants Commission
- Led a group of six to develop a web application to streamline postgraduate program review processes at Sri Lankan universities.
- Implemented backend APIs, authorization, database entities, frontend API gateway, and connecting third party APIs such as Google Drive API.
- Used MySQL for the database, React.js for the frontend, and Laravel for the backend.

Skills

- Programming Languages
  - C++, Java, JavaScript, TypeScript, C#, PHP, Scala, Python, Ballerina, C
- Libraries & APIs
  - OpenGL, WebGL, WebGPU, Three.js, React.js, WebXR Device API
- Frameworks
  - Laravel, Next.js, Express.js, Spring Boot
- Other Technologies
  - Unity, Unreal Engine
  - Git, GitHub
  - MySQL, MongoDB
  - Docker
  - WebAssembly

Languages

- **Sinhala**
  - Native
- **English**
  - Professional working proficiency
- **Japanese**
  - JLPT N4 certified, N3 reading

Certifications

WSO2 Certified Ballerina Developer - Swan Lake: WSO2, Apr 2024

Japanese Language Proficiency Test N4: The Japan Foundation, Jan 2023

Awards

Director's List - 3rd Year 1st Semester: University of Colombo School of Computing, Oct 2024

Director's List - 2nd Year 1st and 2nd Semesters: University of Colombo School of Computing, Jan 2024

Interests

- Computer Graphics
- Extended Reality
- Automata Theory
- Fullstack Development
- Game Development
- Software Engineering Best Practices