



# PASINDU FERNANDO

B.Sc. (Hons) Computer Science(UG) University of Colombo School of Computing

Passionate and driven Computer Science student with a strong desire to excel in cutting-edge research projects. Seeking an opportunity to participate in the CMMRS 2024 to further develop my research skills, engage with esteemed faculty, and contribute meaningfully to the advancement of Computer Science. Eager to immerse myself in an intellectually stimulating environment where I can explore diverse research topics and collaborate with leading experts in the field.

## ACADEMIC QUALIFICATIONS

### BSc (Hons) Computer Science (UG)

University of Colombo School of Computing (UCSC) Sri Lanka (May 2021 - Present)

GPA: 3.9937 / 4.00 (Top of the batch – Rank 01)

G.C.E. Advanced Level Examination, Sri Lanka | **Physical Science Stream** | Selected to UCSC

G.C.E. Ordinary Level Examination, Sri Lanka | 9 A passes

School Attended: St. Sebastian's College, Moratuwa, Sri Lanka

## PROFESSIONAL QUALIFICATIONS

### Software Engineer(Intern) (Nov 2023 - Present)

WSO2, Sri Lanka

### Diploma in Computer Hardware and Networking (Feb 2020 - Aug 2020)

Vocational Training Center, Dehiwala, Sri Lanka

### Dual Diploma in Information Technology and English(Feb 2017 - Jul 2017)

ESOFT Metro College, Piliyandala, Sri Lanka

## VOLUNTEER EXPERIENCE / COMMITMENTS

### Finance Team Member

Aug 2022 - Present

IEEE Student Branch of UCSC, Colombo, Sri Lanka

- Gained experience in budget planning and people handling for events like IEEE day and other events organized by IEEE UCSC

### Faculty Coordinator

May 2022 - May 2023

CSM in University of Colombo, Sri Lanka

- Handled event planning and management in several projects conducted both virtually and physically including annual carols, sabbath day etc.

### Sports and Recreation Avenue Member

Nov 2022 - Present

Rotaract Club of UCSC, Colombo, Sri Lanka

- Worked for uplifting the sports and recreation aspects of the club members and the Inter-Rotaract club competitions

## NOTABLE SOFTWARE PROJECTS

### LIFELINE

Jun 2022 - May 2023

Blood-Banks and Donation Management System

LifeLine is a centralized system which connects blood banks, hospitals / medical centers, campaign organizers and the donors smoothing the process of blood donations, campaign management, staff and inventory management and many more.

### Accomplishments

- Developed frontend in HTML / CSS / JS from scratch.
- Developed a comprehensive PHP framework compatible for MVC architecture from scratch.
- Developed comprehensive graphical reports and filtering options for decision making purposes.
- Developed secure file handling mechanisms to ensure data integrity.
- Got hands on experience with comprehensive documentation and UML diagramming.
- Tested the system using Selenium and User Story based testing.

## TECHNICAL SKILLS

### Programming:

- C / C++ | PHP | Spring boot / Java | JavaScript | Python | Scala | Kotlin | R / Octave | Dart | NodeJS / Express

### Web Development:

- HTML | CSS | ReactJS | Angular

### Database:

- MySQL | PostgreSQL | MongoDB | Redis

### Design Tools:

- Canva | Figma | UML (Diagrams.net)

### Other Skills:

- Kubernetes | Docker | Git/GitHub | Linux environments

## COMPETITIONS

- Fresh-Hack 2021 (Participant)
- Peo-Code 2022 (Participant)
- ReidXtreme 2021 (Participant)
- TechTriathlon 2023 (Participant)

## SPORTS

### UOC Tennis Team Member

Emerged as Champions in the 2022 Deuced Inter University Tennis Championship

## SOFT SKILLS

- Teamwork and collaboration
- Adaptability
- Continuous learning
- Leadership
- Presentation Skills
- Critical thinking



### PHONE

+94 77 256 1212



### EMAIL

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### LINKEDIN

<https://www.linkedin.com/in/pasindu-fernando-143881212/>



### GITHUB

<https://github.com/pasindufernando1>

REFERENCES

- Dr. Dinuni Fernando**  
Senior Lecturer, UCSC, Sri Lanka  
dkf@ucsc.cmb.ac.lk
- Mr. Tishan Dahanayakage**  
Associate Director/Architect  
WSO2, Sri Lanka  
tishan@wso2.com

NOTABLE SOFTWARE PROJECTS

**VentureVerse**  
Entrepreneur and Investor connecting platform

Jun 2023 – Oct 2023

VentureVerse serves as an integrated platform that facilitates obtaining funds for the entrepreneurs who have startups and hope to grow their businesses. The system includes all features with project listings, video conferencing, direct chats, counter proposals and negotiations, document verification, analytics and reports, user management, leaderboards, complains etc.

**Accomplishments**

- Developed frontend in ReactJS with Tailwind and Material UI components.
- Developed backend with Java Spring boot.
- Designed and developed a database in PostgreSQL for the system.
- Developed listings component with add listings, image/video uploads, listing views, counter proposals, listing finalizations etc.
- Integrated Video Conferencing API to the system to embed video conferencing feature inside the system.
- Got hands on experience with comprehensive documentation and UML diagramming.
- Tested the system using Selenium and User Story based testing.

SIGNIFICANT RESEARCH EXPERIENCE

**Optimizing System-Checkpoints in Fault-Tolerant Live VM migration**  
Final year research project (University of Colombo School of Computing)

Nov 2023 – Present

The research project is centered on optimizing checkpoints for fault-tolerant live VM migration, with the objective of tackling crucial challenges in enhancing the reliability and efficiency of cloud-based systems. Commencing with a comprehensive literature review encompassing over 50 research papers, the project established a robust theoretical groundwork and pinpointed prevailing gaps in the domain. This initial phase provided valuable insights into cutting-edge techniques, culminating in presentations of findings to peers and mentors.

**Accomplishments**

- Conducted a comprehensive literature review referencing over 50 research papers to identify gaps and opportunities for innovation in optimizing system checkpoints.
- Presented research findings to academic peers and mentors, including identified gaps and proposed solutions.
- Initiated the design phase of the research project, outlining strategies for developing innovative optimizations.
- Collaborated with peers and mentors to refine research objectives and methodologies, ensuring alignment with project goals.
- Established a roadmap for the implementation phase, detailing key milestones and deliverables.
- Prepared for subsequent stages of the research project, including the development of a prototype system to demonstrate proposed optimizations and validate research findings.


**Integrating LLMs in enhancing API Definitions with Custom Assistants**  
Internship project (WSO2, Sri Lanka)

Nov 2023 – Present


The project at WSO2 focuses on revolutionizing API definitions by integrating advanced artificial intelligence (AI) approaches, particularly large language models (LLMs). The primary objective is to elevate API interactions by generating dynamic responses, thereby facilitating seamless communication between service consumers and developers. This initiative involves rigorous exploration and experimentation with OpenAI's large language models to harness their capabilities within a specific context. A significant aspect of the project involves the development of custom assistants, meticulously trained with WSO2's use case-specific data, tailored to serve the unique requirements of the approach. These custom assistants serve as cornerstones of the efforts, leveraging advanced AI capabilities to enhance the efficiency and effectiveness of API interactions within the ecosystem.

**Accomplishments**


- Conducted extensive research and experimentation with OpenAI's large language models to explore their applicability in enhancing API definitions.
- Achieved an exceptional level of accuracy, surpassing 95% for the assigned use case, through meticulous analysis and testing.
- Developed custom assistants trained with WSO2's use case-specific data to serve the unique requirements of the project.
- Played a key role in bridging theoretical advancements with practical implementation, optimizing and refining the approach continuously.
- Contributed significantly to pushing the boundaries of innovation at the intersection of AI and software engineering within the organization.

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 **GITHUB**

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I do hereby declare that all the information and facts furnishes above are true, correct and complete to the best of my belief and knowledge.