

Motivated Computer Science & Engineering undergraduate at the University of Moratuwa with a 3.60 GPA and strong expertise in full-stack development, machine learning, algorithms, and data structures. Proven track record in building scalable web applications and AI-driven tools using technologies like React.js, Node.js, Python, and databases (MongoDB, PostgreSQL). Eager to contribute to innovative tech projects through a software engineering internship, applying problem-solving skills, leadership, teamwork, time management, and rapid learning to deliver high-impact solutions.

## Work Experience

### MoraSpirit

Assistant Head of Web & Tech Pillar

2024 – Present  
Colombo 06, Sri Lanka

- Led the end-to-end development and deployment of moraspirit360.com, a core organizational platform enhancing user engagement and operational efficiency.
- Managed and optimized the full technical infrastructure, collaborating with leadership to resolve issues and implement improvements.
- Guided two co-chairs in executing SpiritX 2025 Hackathon, providing technical oversight and ensuring seamless event delivery.
- Mentored and onboarded new members in the Web & Tech Pillar, accelerating team skill development and fostering collaboration.

## Projects

### AI-Powered O/L Mathematics E-Learning Platform

Next.js, Node.js, Python, Nest.js, PostgreSQL, MongoDB, Neo4j, WebSockets

2025 – Ongoing

- Engineered a scalable microservices-based platform delivering AI-personalized learning paths, a 24/7 chatbot tutor, and a teacher-student marketplace for Sri Lankan students.
- Implemented real-time communication features using WebSockets and integrated multiple database systems for optimal data management and performance optimization.
- Developed machine learning algorithms for adaptive content recommendation and integrated Neo4j graph database to model complex learning relationships and knowledge dependencies.

### RPAL Compiler & Interpreter

Python, OOP, Data Structures & Algorithms

2025

- Built a full RPAL interpreter from scratch, applying compiler theory to parse, evaluate, and execute recursive programs, demonstrating proficiency in language processing and algorithmic efficiency.
- Designed comprehensive lexical analysis, syntax parsing, and semantic evaluation modules with robust error handling and optimization techniques.

### Online Train Ticket Booking System

Ballerina, React.js, MongoDB

2024

- Developed a concurrent, cloud-native backend with Ballerina integrated to a React.js frontend, enabling secure admin controls and efficient train scheduling management.

### Mystic Mayhem (OOP Console RPG Game)

Java, OOP, Data Structures & Algorithms

2024

- Collaborated in a team to design and implement a console-based RPG, incorporating object-oriented principles and algorithms for gameplay mechanics, resulting in a fully functional game.

- Applied advanced design patterns including Strategy and Factory patterns to create modular character classes, battle systems, and inventory management features.

## Human Resource Management System (HRMS)

2024

*Express.js, Node.js, MySQL, React.js, Tailwind CSS, REST APIs*

- Designed and deployed a full-stack HRMS with secure backend logic and responsive frontend, streamlining HR functions like employee management and data processing.
- Implemented automated payroll calculations, employee attendance tracking with biometric integration, and comprehensive reporting dashboards with data visualization charts.

## Education

### Bachelor of Science in Engineering (Honours)

Feb 2023 – May 2027

*Major in Computer Science & Engineering*

*University of Moratuwa*

*Current GPA: 3.60 / 4.0*

**Relevant Coursework:** *Data Structures & Algorithms (A), Programming Construction (A), Operating Systems (B+), Database Systems (B+), Programming Languages (A), Theory of Computing (A)*

**Awards:** *Dean's List, Semester 1 (SGPA: 3.89)*

### G.C.E. Advanced Level Examination (Physical Science Stream)

2021

*Results: 3 'A' passes in Combined Mathematics, Physics, and Chemistry*

## Technical Skills

<b>Programming Languages</b>	Java, JavaScript, Python, C++
<b>Web &amp; Frameworks</b>	React.js, Node.js, Express.js, Nest.js, Next.js, Ballerina, HTML, CSS, Tailwind CSS, REST APIs, WebSockets
<b>Data &amp; ML</b>	Scikit-learn, Pandas, NumPy, PyTorch, Machine Learning Algorithms
<b>Databases</b>	MongoDB, MySQL, PostgreSQL, Neo4j
<b>DevOps &amp; Cloud</b>	AWS (with Terraform), Docker
<b>Tools &amp; Other</b>	Git, GitHub, OOP, Data Structures & Algorithms

## Soft Skills

Leadership, Teamwork, Time Management, Rapid Learning and Quick Adaptation

## Competitions & Extracurriculars

- Competed in the national Ballerina Coding Competition 2024.
- Participated in MoraXtreme 9.0, a 12-hour university hackathon.
- Coordinated interactive mathematics games (e.g., Circle of Fate) for MoraMaths society at Exmo Exhibition.
- Volunteered as a Mathematics Teacher for MoraMaths Circle and Sasnaka Sansada Foundation, tutoring students and improving comprehension through hands-on sessions.

## References

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