VIHANGA THARUKA DHARMAWARDHANA

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LinkedIn - linkedin.com/Vihanga   **GitHub** - github.com/VihangaTD

Portfolio - VihangaTD

PROFILE

A self-motivated,enthusiastic, and responsible engineering graduate from the University of Moratuwa with proven organizational skills. A friendly, dedicated, and adoptable team player who can quickly learn new things through self-learning. I am seeking an opportunity to contribute my knowledge and skills to the success of the organization while enhancing my abilities as a Software Engineer.

WORK EXPERIENCE

Software Engineer, Intern   **CloudyWare**   04/2025 - 10/2025

- Worked on developing full-stack web applications using **ReactJS, Spring Boot**, and **MySQL**, participating in all stages from requirement analysis to deployment.
- Implemented robust **JWT-based authentication** and authorization mechanisms with email verification to enhance security and user management.
- Designed and developed dynamic, responsive user interfaces with React, seamlessly integrated with RESTful APIs built using Spring Boot.
- Developed and optimized back-end logic, database interactions, and API performance to ensure efficient data handling and overall system reliability.

EDUCATION

University of Moratuwa   2021 - 2025

Bachelor of the Science of Engineering Honours

GCE Advanced Level Examination- Physical Science Stream(MATHEMATICS)   2016 - 2018

Subjects - Combined Mathematics : A, Physics : B, Chemistry : A (Z-Score - 1.8604)

PROJECTS

Employee Management System (Microservices Architecture) ⧉   2025

- Developed a microservices-based system using Spring Boot and **Spring Cloud** with Eureka, API Gateway, and Config Server.
- Implemented employee and department services with MySQL and **OpenFeign** for inter-service communication.
- Integrated **RabbitMQ** for config updates and tested all APIs using Postman.
- Tools & Technologies: Spring Boot, Spring Cloud (Eureka, Gateway, Config Server), MySQL, RabbitMQ, Docker, Postman

Budget Analytics System ⧉   2025

- Developed a full-stack Budget Analytics application with React frontend and Spring Boot backend, enabling users to efficiently manage incomes, expenses, and categories. Implemented **JWT-based authentication** with **email verification** for secure account creation and login. Integrated Cloudinary for storing profile icons and used MySQL for persistent data management.
- Designed entities for profiles, categories, incomes, and expenses, ensuring relational integrity and automatic timestamping. Enabled Excel export/import using **Apache POI** and created interactive dashboards with **Recharts** for visual analytics.
- Tools & Technologies: Spring Boot, React, MySQL, JWT, Cloudinary, Email Service, Apache POI, Tailwind CSS, Recharts, Axios

Software-driven Project on Computational Modelling of Rubber Fracture Mechanics 2024 - 2025

- Computational model built to predict fracture in rubber-like materials using **Peridynamic theory.**
- Modified **Peridigm** source code in C++ with MPI for parallel computation and implementation of custom hyperelastic and viscoelastic material models.
- **Automated** simulation setup, data processing, and result analysis using Python (NumPy, Pandas, Matplotlib).
- Visualized 3D crack propagation and stress fields using **ParaView**, with data analysis and parameter calibration performed in MATLAB/Excel.
- Tools & Technologies: Peridigm, C++, MPI, Python (NumPy, Pandas, Matplotlib), ParaView, MATLAB, Excel, Linux

POS System(Core Java) ⎘ 2025

- Designed a POS system in Java Swing using **MVC layered architecture** to ensure scalability and modularity.
- Implemented Customer, Item, and Order modules featuring CRUD operations and dynamic data handling with **JTable.**
- Integrated search, order processing, and total calculation functions with proper validation and exception handling.
- Tools & Technologies: Java, Swing, MVC Pattern, Layered Architecture, JTable, DTOs, Object-Oriented Programming (OOP), MySQL

BlogHive ⎘ 2025

- Developed a responsive blog platform using **ReactJS**, with dynamic content rendering and client-side routing.
- Implemented reusable components and state management for seamless user interaction.
- Optimized performance and ensured mobile-friendly design across devices.

SKILLS

- **Frontend Development : HTML | CSS | JavaScript | TypeScript | Angular | React | Tailwind CSS | Bootstrap | Sass | UI Design | Figma**
- **Backend Development : Java (Spring Boot) | Python | JavaScript/TypeScript (Node.js, Express) | REST API Microservices | Software Design | OOP | SOLID Principles | Software Design Patterns**
- **Database : MySQL | MongoDB | ORM (Object-Relational Mapping)**
- **Platforms & Tools : Docker | Git | Technical Writing | Problem Solving**
- **Others: VS Code | NetBeans | IntelliJ | Postman | JavaFX**
- **Soft skills: Problem-solving | Teamwork | Leadership | Adaptability | Fast learning ability | Collaboration | Flexibility**

CERTIFICATES

- Certificate in Software Development- Institute of Computer Engineering (ICET) Present
  Present
  - • Java SE, Java EE, Servlets, JavaFX (Desktop Application)
  - • OOP, Design Patterns, ORM(Hibernate), React, Angular

ORGANIZATIONS & VOLUNTARY WORKS

- Exmo Logistics Team Member
  - Exmo 2023
- District Representative
  - Soyuru Sathkaraya - 2023
- Student Member
  - The Institute of Engineers Sri Lanka

REFERENCES

- **W.M. Asith Priyankara -** Software engineer**, KAST,** +94712872832**,** priyankarawma@gmail.com
- **M.S. Vihanga -** Software engineer**, Metarune Labs PVT Ltd ,** +94713039970, vihangams.20@gmail.com