



MICHAEL CLERANS

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PROFILE

I am an Undergraduate IT Student specializing in mobile application development and full-stack systems. I have hands-on experience building real-world applications using React Native, Node.js, Express, and relational databases. I am skilled in designing secure backend APIs, integrating mobile frontends, and developing practical, user-friendly applications. I am passionate about learning industry-relevant technologies and applying them to scalable real-world solutions.

WORK EXPERIENCE

- **Freelance Web & Mobile Developer** (2025 – Present)
 - Designed and developed custom websites, mobile applications, and e-commerce solutions tailored to client requirements.
 - Utilized React, Node.js, Firebase, and MySQL to build scalable and maintainable applications.
 - Enhanced website performance and user experience through effective UI/UX optimization and responsive design.

SKILLS

- **Programming Languages:** Java, JavaScript, Python, PHP, HTML, CSS, C
- **Frameworks & Libraries:** React Native, React, Node.js
- **Database Management:** PostgreSQL, MySQL, Oracle 19c
- **Web & API Development:** RESTful APIs, Fast APIs, Firebase Auth
- **Mobile Application Development:** Android Development (Java, Kotlin), React Native
- **Cloud Platforms & Deployment:** AWS
- **Developer Tools:** Git, GitHub, Postman, Figma
- **Languages:** Tamil, English
- **Soft Skills:** Communication, Leadership, Time Management, Project Management, Teamwork, Creativity, Problem-solving, Critical Thinking

EDUCATION

- **BIT (Hons) in Network & Mobile Computing** – Currently studying at Horizon Campus
- **A/L in Engineering Technology** – Hindu National College, Pussellawa (2019)

ACHIEVEMENTS & CERTIFICATIONS

- **Web Design for Beginners** – University of Moratuwa *Issued Dec 2024*

RESEARCH PUBLICATIONS & SYMPOSIUM PRESENTATIONS

A Collaborative Filtering Approach Using Singular Value Decomposition for Movie Recommendations

Horizon Interdisciplinary Research Symposium (HIRS) 2025, Horizon Campus, Sri Lanka *Nov 2025*

- Co-authored and presented a peer-reviewed research paper on an SVD-based movie recommendation system.
- Trained and evaluated the model using the MovieLens 100K dataset with performance measured using RMSE and MAE.
- Implemented using Python and the Surprise library; achieved an RMSE of 0.91.

PROJECTS

MegaShop Mobile App – Full Stack E-Commerce Application (Ongoing) *React Native, Node.js, Express, PostgreSQL*

- Developing a full-featured mobile e-commerce application with user authentication, product browsing, cart, wishlist, and order management.
- Designed and implemented a complete RESTful backend using Node.js, Express, and PostgreSQL.
- Implemented secure JWT-based authentication and role-based access control.
- Developed backend APIs for products, categories, cart, orders, and wishlist with proper validation and error handling.
- Currently developing the React Native frontend and integrating it with completed backend APIs.
- Followed clean architecture principles using modular controllers and middleware-based security.
- **GitHub:** MegaShop Mobile App

MC Mobiles App – React Native Mobile Shop (Ongoing)

React Native, Node.js, MongoDB

- Developed a mobile shopping application for buying and selling mobile devices.
- Built an intuitive and easy-to-navigate user interface for smooth mobile shopping.
- Implemented a Node.js backend API for data management and secure server-side operations.
- Gained hands-on experience in React Native development, backend API integration, and full-stack application design.
- **GitHub:** MC Mobiles App

MC Mobiles Website – React-Based E-Commerce Platform (Ongoing)

React.js, JavaScript, CSS,

Responsive UI

- Developed a responsive mobile phone e-commerce website using React with a component-based architecture.
- Designed clean and reusable UI components for product listings, mobile specifications, and navigation.
- Implemented dynamic product filtering and search functionality.
- Applied mobile-first and responsive design principles to ensure smooth performance across devices.
- Improved usability through structured product categorization and interactive UI elements.
- Gained hands-on experience with React state management and frontend best practices.
- **GitHub:** MC Mobiles Website

Global Country Insights Dashboard – Group Project

HTML, CSS, JavaScript, REST APIs, Chart.js

- Collaboratively developed a web-based dashboard displaying country information, live weather data, and COVID-19 statistics.
- Integrated multiple public REST APIs including REST Countries API, OpenWeatherMap, and disease.sh.
- Contributed to frontend development, API integration, and data visualization using Chart.js.
- Designed responsive UI components with efficient search functionality and user-friendly error handling.
- Improved user experience through dynamic content rendering and structured data presentation.
- Worked effectively in a team environment using GitHub for version control and collaboration.
- **GitHub:** Global Country Insights Dashboard

Weather Web Application

HTML, CSS, JavaScript

- Built a dynamic and responsive web application providing real-time weather updates.
- Integrated a public weather API to display temperature, humidity, wind speed, and weather conditions.
- Designed a clean UI with intuitive interactions and location search functionality.
- Gained experience with asynchronous JavaScript, DOM manipulation, and responsive design.
- **GitHub:** Weather Web Application

GPA Calculator Mobile App

Flutter, Dart

- Developed a cross-platform mobile application using Flutter to calculate university GPA.
- Implemented subject input validation and real-time GPA calculation logic.
- Designed a clean and intuitive user interface focused on ease of use for students.
- **GitHub:** GPA Calculator Mobile App

Library Management System

Java, JavaFX, MySQL

- Implemented essential library functions including adding, searching, issuing, and returning books.
- Applied object-oriented programming concepts and modular class design.
- Strengthened understanding of Java, OOP principles, and database connectivity.
- **GitHub:** Library Management System

Student Grading System

VS Code, C

- Developed a C-based application for managing student grades.
- Implemented mark entry, grade calculation, and result display logic.
- Strengthened understanding of arrays, loops, conditionals, and file handling.
- **GitHub:** Student Grading System

References

Name: Mr. George C Dixon
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