Jathushan Varnakulasingam

FULL STACK DEVLOPER

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Summary

I am a dedicated **full stack developer** with expertise in MERN stack, LAMP stack, python,java,Machine Learning, and Networking. I specialize in building efficient backend systems and leveraging emerging technologies to solve complex challenges. I am seeking a backend development role where I can contribute to a company's success while advancing my technical expertise.

Education

Bachelor of Science (HONS) in Computer science — **Sep 2023 – present**
(Informatics Institute of Technology (IIT) Affiliated by University of Westminster (UOW), UK)

Foundation in Higher Education (Merit pass) — **Sep 2022 – Apr 2023**
(Informatics Institute of Technology (IIT))

N.V.Q Level - 03 IN Automobile Engineering — **Nov 2021 – Apr 2022**
(Department of Technical education and training (DTET), Sri Lanka)

G.C.E O/L -5A,4B — **Jan 2006 – Apr 2019**
(V/Vavuniya Tamil Madya Maha Vidyalayam)

Projects

Adventures with BoBo Game (ASD) Children (2025) (SDGP)

2nd-year Software Development Group Project
Contributed to an interactive educational game for children with autism spectrum disorder (ASD), developed as part of a 2nd-year Software Development Group Project. Designed and implemented a Python-based **Balloon Pop mini-game** using Object-Oriented Programming principles to encourage engagement and fine motor skills.
Tech – Unity| Python |OpenCV |Object Detection | Hand Gesture Control

Breast Cancer Detection Using Machine Learning (2025) (On Going) – *2nd Year Individual Machine learning Project*

2nd-year Machine Learning Individual Project
Developed a supervised machine learning model to detect breast cancer using clinical data, focusing on early diagnosis and classification of tumours. Performed data preprocessing, model training, evaluation, and visualization using Python-based tools and libraries.
Tech – Python | Scikit-learn | Pandas | NumPy | PyCaret | Matplotlib

Concurrent Ticket Booking System (2024) - 1st Year Individual Java Project

Developed a real-time ticket booking system in Java that simulates interactions between multiple vendors and customers using multithreading. Vendors continuously supply tickets to a shared Ticket Pool, while customers concurrently attempt to purchase tickets based on user-defined quantities and rates. The system uses synchronized methods to ensure thread safety, preventing race conditions and efficiently handling concurrency.
Tech – Java | Threads | Synchronized Methods | OOP | Console-based UI.

Hunger Eradicate Website (2023) - 1st Year Semester Group Project

Collaborated on building a responsive website aimed at connecting food donors with people in need to help reduce hunger in the community. Implemented front-end design using HTML, CSS, JavaScript, and Bootstrap, with a MySQL database to manage user data and food donation records.
Tech – HTML | CSS | JavaScript

Flight Seat Management System (2023) – *1-year Individual* Java Project

Developed a Java-based application to manage seat bookings and cancellations for a plane. Implemented core functionalities such as booking and cancelling seats, displaying available seating, printing ticket information, and tracking total sales. The system also includes features for searching specific tickets and finding the first available seat.
Tech – Java | OOP | File I/O | Command-Line Interface CLI

Heart Failure Analysis with Machine learning (2025) -***Individual Data Analysis Project***

Developed a machine learning model to predict heart failure outcomes based on clinical patient data. Cleaned, pre-processed, and analysed medical datasets, implementing classification algorithms to identify risk factors contributing to heart failure. Evaluated model performance using various metrics, including accuracy, precision, and recall, to ensure reliable predictions.
Tech – Python | Machine Learning | Pandas | NumPy | Sci-Kit Learn | Data Preprocessing | Classification Models

BT Car Controlling with Laptop (2024) - IoT Project

Developed an IoT-based car control system using Python and Arduino, allowing control of the car via laptop arrow keys through Bluetooth communication. Integrated real-time video streaming using a live camera feed for navigation and monitoring. The system also supports internet-based communication for remote control and monitoring.
Tech – Python | Arduino | Bluetooth | IoT | Real-Time Streaming | Internet Communication

Certifications

University of Moratuwa Python for Beginners **(2022)**
Computer Network and System Administration BY IIT **(2024)**
Problem Solving Intermediate **(2023) (Hacker Rank)**
SQL Basic Certification **(2023) (Hacker Rank)**
Hacker rank score 218

Technical skills

Web Development: HTML, CSS, Js, Ts, React.js, Tailwind css
Server-Side Scripting: Node.js, PHP
Backend Frameworks: Express.js, Laravel
API Development: RESTful
Database Management: MySQL, MongoDB
APIs Authentication: JWT, OAuth
Programming Languages Python (Proficient), Java
Machine Learning: Python, sci-kit learn, Pandas, NumPy, pycarot, Matplotlib, TensorFlow
Version Control: Git, GitHub

Skills

Good communication in English & Tamil
Leadership
collaboration
Time management
Adaptability
problem-solving

Extra Curriculum Activities

Environmental society President (2012-2019)
1st place in Debate (2016)

Referees

Mr. Guhanathan Poravi
Senior Lecturer Grade 1
Informatics Institute of Technology
guhanathan.p@iit.ac.lk

Mrs.Jananie Mayooresan
Lecturer- Business Department
Informatics Institute of Technology
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