AKILA INDUWRA KALUARACHCHI

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🌐 Portfolio | in Linkedin | ○ GitHub

SUMMARY

Computer Science undergraduate skilled in Java, Python, C++, Machine Learning, and Data Science. Proficient in MySQL, Spring Boot, and React. A proactive team player with strong problem-solving and communication skills, dedicated to innovation, excellence, and continuous learning to develop impactful digital solutions.

EDUCATION

R/ Ananda Maithreya Central College - Balangoda   **2016 - 2022**
- Advanced Level Exam, Biology Science

University of Westminster, BSC in Computer Science   **Sept 2023 - Present**
- Coursework: Computer System Fundamentals, Software Development, Algorithms, Object-Oriented Programming, Client Server Architecture, Machine Learning

TECHNICAL SKILLS

- **Programming Languages:** Java, C++, Python, PHP, HTML, CSS, JavaScript
- **Machine Learning & Data Science:** Scikit-learn, Pandas, NumPy, TensorFlow, Keras, Matplotlib, Seaborn
- **Algorithms & Deep Learning**: CNN, ANN, RNN, Algorithm Design
- **Web Development:** Spring Boot, React, MySQL, Tailwind CSS
- **Networking & Web Services**: Basic knowledge of RESTful APIs, HTTP, Socket Programming, TCP/IP, Serverless Computing, and AWS.
- **Others**: Git, Postman, MySQL, Basic skills in Spring Boot and React for web development.

PROJECTS

01.LumiStone: AI-Powered Resource Detection (Group Project)   **Github Repo**
- Developed the backend machine learning system for LumiStone, an underground resource detection project. Implemented and trained predictive models using LightGBM, ANN, Random Forest, and XGBoost to determine resource depth and type. Focused on optimizing algorithms for high accuracy and performance in the application and web platform.

02.Hand Signal Detection Using SSD   **Github Repo | Testing Video**
- Developed a real-time hand gesture recognition system on Ubuntu using a pre-trained SSD model. Detected five gestures via webcam input, ensuring efficient detection and smooth real-time performance.

03.Real-Time Event Ticketing System – Full-Stack Application   **Github Repo**
- Built a real-time event booking platform with Spring Boot and React, allowing users to browse events, securely book tickets, and manage reservations. Features include user authentication, dynamic event updates, and a responsive UI.
- Technologies: Spring Boot, React, MySQL, JWT Authentication, REST API, Tailwind CSS.

04.Breast Cancer Mortality & Survival Prediction (Ongoing)   **Github Repo**
- Developed ML models to predict breast cancer mortality and survival periods using classification (Logistic Regression, Naive Bayes, KNN) and regression (Decision Trees). Optimized hyperparameters, applied ensemble learning, and analyzed results to support healthcare decision-making.

05.Bookstore Management System: RESTful API Development (Ongoing)   **Github Repo**

Designed and implemented a RESTful API for a bookstore management system using JAX-RS and JSON. Developed CRUD endpoints for key entities, implemented custom exception handling with ExceptionMapper, and ensured functionality, scalability, and clean documentation through Postman testing.

06.Snake Game (JavaSwing)   **Github Repo**
Developed a classic Snake game using Java Swing with game logic, collision detection, and score tracking. Implemented food generation, snake growth, and game-over conditions, designing a user-friendly interface with keyboard controls.

07.Calculator Applications with Error Handling (Java & C++)   **Github Repo**
Developed calculator applications in Java and C++ with robust error handling, managing invalid inputs, division by zero, and arithmetic exceptions. Designed a user-friendly interface for Java and a command-line interface for C++ to ensure smooth operation and accurate calculations.

COMPETITIONS

Hult Prize 2025 – On-Campus Program   **e-certificate**
Participated in the Hult Prize 2025 On-Campus Program with LumiStone, a project using ML, ANN, and Deep Learning to detect underground water, gold, and gems. Developed an Android app for real-time detection and analysis.

CERTIFICATIONS

Udemy Certifications
- Java Masterclass 2025: 130+ Hours of Expert Lessons
- Beginning C++ Programming - From Beginner to Beyond
- HTML - The Complete Guide to HTML for Beginners
- SQL Bootcamp with MySQL, PHP & Python

Linkedin Certifications
- Learning C++
- Level Up: C++
- Object-Oriented Programming with C++
- C++ Development: Advanced Concepts, Lambda Expressions, and Best Practices
- AWS Certified Cloud Practitioner (CLF-C02) Cert Prep: 1 Cloud Concepts
- AWS Essential Training for Developers
- Artificial Intelligence Foundations: Machine Learning
- PYTHON DEVELOPMENT PROFESSIONAL CERTIFICATION
- Learning REST APIs
- Spring Boot 2.0 Essential Training

REFERENCE

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