

Alwin Hemanth K S

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PROFILE

As a Master of Computer Application (MCA) graduate, I possess a solid foundation in programming, software development, and data structures. I am proficient in C, C++, Python, Java, MongoDB, Power BI, Linux, and PHP. With hands-on experience in machine learning (ML) and artificial intelligence (AI) projects, I am passionate about creating efficient, scalable solutions. I am skilled in analyzing complex problems and implementing robust systems that meet user needs. As an aspiring Data Scientist, I leverage my technical expertise and academic background to solve data-driven challenges and contribute to innovative projects in software engineering and development.

EDUCATION

Bachelor of Science in Mathematics **2019-2022**
Mar Thoma College, Chungathara

Master of Computer Applications **2023-2025**
Union Christian College, Aluva

SKILLS

- **Frameworks:** Django, Flutter, Scikit-learn, PyQt5, YOLOv8
- **Tools:** MySQL, MongoDB, Bootstrap, Power BI, NumPy, Pandas, Git, Matplotlib
- **Platforms:** PyCharm, Jupyter Notebook, VS Code, Eclipse
- **Languages:** C++, C, Python, Java, PHP, MongoDB, MySQL, Linux, HTML
- **Soft Skills:** Problem Solving, Critical Thinking, Communication Skills, Creativity

PROJECTS

- **Density Based Smart Traffic Control System** **January 2025-April 2025**
 - **Vehicle Detection with YOLOv8:** Implemented real-time vehicle detection using the YOLOv8 deep learning model for accurate traffic density analysis at a 4-way junction.
 - **Dynamic Signal Control System:** Developed an intelligent traffic signal controller that allocates green light duration based on detected vehicle density in each direction.
 - **Framework & Technologies Used:** Built using Python, PyQt5 for GUI, and YOLOv8; integrated OpenCV for video processing and detection visualization.
 - **Android App in Flutter:** Designed a Flutter-based Android application to display live traffic data and signal statuses, enhancing accessibility and monitoring.
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- **Online Movie Ticket Booking System** **August 2024-November 2024**
 - Developed a web-based movie ticket booking platform using HTML, CSS, JavaScript, with a backend in PHP for dynamic content rendering.
 - Integrated secure payment gateway (using Stripe API) for online transactions, allowing users to complete bookings via credit/debit cards.

- Built user authentication and an admin panel using MySQL for database management, allowing easy movie listings and booking management.
- Optimized the system's performance and security, ensuring efficient data handling with PHP and MySQL, and implementing security protocols for user data protection.

WORK EXPERIENCE

Python Intern

Corezone Solutions — *Townhall, Kochi*

Mar 2025 – Apr 2025

- Utilized Python for data preprocessing, manipulation, and basic analysis to support project requirements.
- Worked with libraries such as Pandas, NumPy, and Matplotlib for handling structured data and visualization.
- Developed scripts for automating data extraction and transformation tasks from multiple sources.
- Collaborated on exploratory data analysis and contributed to insights generation for real-world business cases.

Flutter Intern

Corezone Solutions — *Townhall, Kochi*

Feb 2025 – Mar 2025

- Developed responsive and interactive Android applications using Flutter and Dart.
- Integrated REST APIs to fetch and display dynamic data within the app interface.
- Collaborated with backend developers to ensure seamless data flow and UI responsiveness.
- Gained experience building front-end interfaces for data-centric applications, useful for deploying ML-based features.

Data Entry Clerk

The Kalkkulam Vanitha co-operative Society

August 2019- December 2020

- Processed and maintained large volumes of customer data and financial records with a focus on data accuracy and integrity, ensuring high-quality datasets for analysis.
- Conducted data validation and data cleaning to improve the quality and reliability of information, supporting data-driven decision-making.
- Leveraged database management systems to efficiently update and retrieve data, improving the organization's data workflows.
- Ensured strict compliance with confidentiality and regulatory guidelines, applying attention to detail in handling sensitive data.