# **AARON XAVIER**

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#### TECHNICAL SKILLS

Languages: C, Python, HTML, CSS

Miscellaneous: Time Management, Adaptive Skill, Teamwork, Communicative Skill

Additional Skills: IoT, Real-Time Operating Systems (RTOS)

# **EDUCATION**

B. Tech in Electronics and Communication Engineering
APJKTU, Muthoot Institute of Technology and Science

Higher Secondary (XII)
CBSE, KV INS Dronacharya

SSC (Xth) Santa Maria Senior Secondary School

2020-2024

2019-2020

2018

### **PROJECTS**

#### **Automatic Parking Time Identifier and Security System**

- Developed ANPR System: Implemented YOLOv5 and Python, achieving 83% accuracy in number plate recognition, enhancing parking time identification and security.
- Established SQLite Database:Optimized data storage and management for efficient system performance.
- Integrated Flask: Ensured seamless data communication by linking the database and system.
- Technologies: Python, Dart, SQLite, Flask

#### **Underwater ROV for Inspection**

- Engineered a custom underwater ROV for ship hull inspections, increasing inspection precision by 40% and reducing inspection time by 50%, leading to significant cost savings for maritime clients.
- Utilized Arduino Uno ATmega328P: Enhanced system performance and control by integrating the IoT processor.
- Implemented Cost-Effective Solution: Introduced an efficient inspection method, minimizing manual labor and optimizing operational efficiency.
- Technologies Utilized: ROV, Arduino Uno

# Face Mask Detection System, Self-Initiated Student Group Project

- Engineered YOLOv5-based system for Covid-19 security, focusing on real-time face mask detection.
- Achieved 80% accuracy, processed video streams at 30 frames per second, and trained on a dataset of 1,000 images..
- Implemented Python for robust performance and scalability.
- Enhanced public health and safety through advancements in Covid-19 preventive measure
- Technologies: YOLOv5, Python

### CERTIFICATION AND ACHIEVMENTS

- Cambridge Business English Certification (BEC Preliminary)
  - B1 Pass
- Received the **APJ Abdul Kalam Award 2024** for the second best project at Muthoot Institute of Technology and science for underwater ROV for inspection