

Kalyanasundaram V

kalyanasundramv21@gmail.com
github.com/Kalyanasundaram12

+91-6381977496
linkedin.com/in/kalyanasundaram-v-48b21a229/

EDUCATION

Vellore Institute of Technology

Integrated Master of Technology in Software Engineering; **CGPA: 8.83 / 10**

Chennai, India

September 2021 - Present

Technical Skills: Machine Learning and AI, Data Analytics, Big Data, Blockchain, DevOps

Sri Jayendra Swamigal Silver Jubilee Matric Hr Secondary School

HSC : **91.16%**

Tirunelveli, India

June 2019 - May 2021

EXPERIENCE

Capx AI

Community Intern

Remote

June 2024 - Jan 2025

- Established **Strategic partnerships with global Web3 and AI communities** enabling cross-collaboration on events, hackathons, and developer programs.
- Coordinated **community events and virtual meetups** ensuring meaningful discussions on AI Agents, decentralized infrastructure, and Web3 innovations

Indian Oil Corporation Limited

Software Development Intern

Chennai, India

Dec 2023 - Dec 2023

- Implemented **An Intern Attendance Portal** which includes payroll management in and out time of the Intern and admin panel of the portal to monitor and connect with XAMPP Database to store all the data.
Tools and Frameworks used: PHP, XAMPP Database, HTML.

SKILLS

Languages Python, PHP, C++, JavaScript, SQL, JAVA

Tools Kubernetes, GIT, MySQL, SQLite, XAMPP

Platforms Linux, Web, Windows, Arduino, Raspberry, AWS, GCP

Soft Skills Leadership, Event Management, Public Speaking, Time Management

PATENTS

A Permissioned Blockchain with Novel Public Consensus for Monitoring Quality in Public Works

- A blockchain-based tender tracking system using Hyperledger Fabric. PATENT ID - 202441069105

A System and Method for Protecting Secret Documents on Permissioned Blockchain

- A secure document authentication system utilizing RFID and the RAFT consensus. PATENT ID - 202441072588

A System and Method Facilitating Tracking Authenticity of Organic Produce in Supply Chain

- A novel mechanism for tracking organic produce authenticity in the supply chain. PATENT ID - 202441081169

A Shelf, A Shelving System and A Method Thereof

- A smart sensor-equipped, AI-powered shelving system for efficient inventory management. PATENT ID - 202441087747

Multi-layered anti-extortion system and method for crypto wallets to safeguard physical and virtual extortion threats

- A visual marking system for precise question-answer mapping and evaluation. PATENT ID - 202541002185

A Device, A System To Generate One or More Meal Recommendations and a Method Thereof

- An Explainable AI - powered system to enhance food storage management. PATENT ID - 202441092366

Device and Method for Rodent Detection and Deterrence in Sugarcane Plantations

- A system designed to identify and prevent rodent activity in sugarcane fields efficiently. PATENT ID - 202541002183

PROJECTS AND PAPERS

Enhanced Interpupillary Distance Identification for Children Using Object Detection Models

- Leveraged advanced models for pediatric vision assessments, received the best paper at the International Conference on Integration of Emerging Technologies for the Digital World, accepted for publication in the IEEE Xplore, indexed in Scopus.

Prepartum Prediction of Cephalopelvic Disproportion Based on Maternal Anthropometry

- Integrated machine learning to improve maternal care, presented at the International Conference on Advances in Data Driven Computing and Intelligent Systems, held by BITS Pilani, accepted for publication by Springer, indexed in Scopus.

Interpretable Deep Learning for Automated Retinal Damage Detection in Optical Coherence Tomography

- Enhanced the model's predictions by providing comprehensive Grad-CAM visualizations in retinal injury images, presented and accepted for publication at the IEEE Big Data International Conference 2024, Washington DC, USA.

Marine Animal Classification with EfficientNetB7 and Grad-CAM: A Novel Approach Leveraging XAI

- The study introduces a sophisticated methodology to revolutionize marine animal surveys with a factor of interpretability, aiding advancements in ecological research. It is accepted for publication in Springer, indexed in Scopus.

A Multichannel CNN-LSTM Approach for Fake News Detection

- The paper explores how content and knowledge-based systems can be integrated to enhance fake news detection using a hybrid CNN-LSTM architecture. It is accepted for publication in IEEE Xplore, indexed in Scopus.

Diabetic Retinopathy Detection Using An Advanced Deep Learning Trinet Model

- A novel framework that enhances early detection of diabetic retinopathy by employing advanced methods, pushing forward innovation in healthcare diagnostics. The paper is accepted for publication in Springer, indexed in Scopus.

Flexible U-Net with Transfer Learning for Optic Disc Segmentation in Glaucoma Detection

- In this results highlight EfficientNetB1's superior segmentation performance, achieving a dice coefficient of 0.9476, a Jaccard score of 0.9005, and an AUC of 0.99. presented and accepted for publication at the 2024 Third International Conference on Electrical, Electronics, Information and Communication Technologies (ICEEICT) at Tiruchirappalli.

BOOK CHAPTERS

- AutoML for Explainable AI (Accepted for publication by Jenny Stanford Publishing)
- AutoML for Image Processing (Accepted for publication by Jenny Stanford Publishing)
- Leveraging Explainable AI for Enhanced Patient Care (Accepted for publication by CRC Press Books)
- Blockchain in Tea Leaves Supply Chain (Accepted for publication by Wiley)
- Blockchain in Sandalwood Supply Chain (Accepted for publication by Wiley)

CERTIFICATIONS

- **Agile Scrum In Practice**
Infosys Springboard
- **Oracle Cloud Infrastructure 2024 Generative AI Certified Professional**
Oracle
- **CC0101EN: Introduction to Cloud Computing**
IBM
- **CB0103EN: AI Chatbots Without Programming**
IBM

HONORS AND AWARDS

- **Microsoft Learn Student Ambassador Beta:** Worked on AI projects, mentored over 2000+ students, and conducted more than 25+ online and offline technical sessions on Azure Cloud Computing.
- **Google Cloud Arcade Facilitator:** Mentored over 500+ students working on Google Cloud Platform and handled all query management and technical sessions.
- **Design Lead for TechnoVIT'23 and Vibrance'24:** The annual technical and cultural fests of Vellore Institute of Technology, Chennai.