Jayaraman K

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EDUCATION

SSN College of Engineering

Chennai, India

B. Tech in Information Technology(on going)

Sep 2023 – Jul 2026

St. Sebastian High School

Nagapattinam, India

Diploma in Mechanical Engineering - 94/100

Jun 2018 - May 2019

Valivalm Desikar Polytechnic College Diploma in Mechanical Engineering - 96/100 Nagapattinam, India Jun 2019 – May 2022

IT -PROJECTS (TO SEE PROJECTS- PROJECTS WITH LIVE DEMO)

Bridge Game Mini Project LiveDemo

Feb 2024 – Jun 2024

Python, JavaScript, HTML, CSS

- Contributed to GitHub management, documentation, and binomial heap extraction.
- Developed UI to enable interaction between different scenes.

WASH WISH-(W²)

Aug 2024 – Jan 2025

Python, Django, HTML, CSS, JavaScript

- Developed a full-stack web application for managing laundry services, including user registration, service selection, and order tracking. The system streamlines operations for laundry service providers and customers, improving service efficiency and customer experience.
- W² features secure user sign-up/login, order placement, and real-time tracking. Admins manage users and orders through a dedicated panel. The system uses Django templates, static file handling, and Python-based backend logic, offering a clean, responsive design that works smoothly across devices with well-organized files and user-friendly interfaces.

CO2 EmissionDetection Using Deeplearning Project

Aug 2024 - Dec 2025

Python, JavaScript, HTML, CSS

only ML-model development

- Developed and trained a deep learning model for CO concentration classification using time-series sensor data.
- Performed data preprocessing, feature extraction, and model optimization for robust performance. Integrated the model into a Python-based software system for real-time CO level detection. Implemented modular code architecture for scalable and maintainable ML pipelines. Evaluated model accuracy using cross-validation and improved performance through hyperparameter tuning.

Computer Vision-Road Anomaly Detection: speed bumps, potholes, cracks Project Jan 2025 – May 2025 Python, JavaScript, HTML, CSS, Flask yolov8 ML-model

- GitHub management, documentation, ML model creation, labelling of model images to train.
- Developed UI to enable interaction between different scenes.
- Developed a machine learning-based road anomaly detection system utilizing the YOLOv8 Nano model. The model
 was trained to identify road surface anomalies such as potholes and speed bumps using a computer vision dataset.
 Integrated the system with a Flask-based web application for real-time detection. Focused on optimizing detection
 performance and streamlining the future integration of real-time updates for improved accuracy and efficiency. The
 project demonstrates proficiency in machine learning, computer vision, and web development.

${\bf DQN\text{-}Snake~game~\text{-}Project(reinforcement~Learning)~\underline{LiveDemo}}$

Jan 2025 – May 2025

Flutter, Dart

• Snake Game with Reinforcement Learning — Flutter, Dart Developed a modular Snake Game in Flutter with both manual and AI gameplay modes. Integrated a Q-learning-based Reinforcement Learning agent to autonomously learn and play the game. Used simplified game state encoding and Q-table updates for real-time decision-making. Implemented persistent high scores and settings using shared preferences. Focused on clean UI, sound effects, and the meswitching for better user experience.

TECHNICAL SKILLS

- Languages: Python, SQL, HTML/CSS [Intermediate Proficiency] javascript, C, Dart, Ruby [Basic Proficiency]
- Developer Tools: VS code, Huggingface, Github, Google Cloud
- Technologies/Frameworks: Kali-Linux, Ubuntu
- Designing Tools (Mech): AutoCAD (Proficient)

DIPLOMA MECH-WORK EXPERIENCE (TO SEE PROOF- WORK EPF ACCOUNT)

Hi Trans Service Pvt. Ltd.

Jun 2022 – Dec 2022

Project Junior Engineer

Hosur, India

- Superviser for workers(like welders, fitters, plumber, helpers etc...) in HVAC work for Tata Electronics Pvt. Ltd., including duct erection and reporting. team work with employee and workers.
- Created tax invoices and handled communication with Tata employees regarding daily targets.

Sanmar Chemplast Pvt. Ltd.

Jan 2023 - Jul 2023

Junior Engineer

Mettur, India

- Learned chemical plant safety and operations, performed pump maintenance, and prepared daily reports
- Created tax invoices and handled communication with Tata employees regarding daily targets.correct communication with higher officials.

MECH -PROJECT (SUPER CONDUCTIVITY- POWER TRANSMISSION)

Stealth Mode Watercraft | liquid Nitrogen, YBCO superconductor Rings, shaft, thruster Nozzle— Jan. 2022 – May. 2022 Implementation of power transmission system of water craft (upgraded), this would have been gave a air frictionless and fully powered by the liquid nitrogen as power fulid itself. This modification maked good evolutionary idea and made safer a country, this modification of uboats added in seaforces. natural resources of water pressure in underwater ocean make it usefull and saltwater also electrolysis, gyroid shape electroplates making efficient way of electrolysis in saltwater.

Achievements (To see : outstanding)

- * College first award and certification Polytechnic 2022 Batch
- * Scouts Captain in 2017 https://jayaraman-k-outstanding.tiiny.site
- * 3D printing programming and Design course 2022-2023
- * 200+ solved problems leetcode solver
- * own acheivement Fitness Influence in offline