



JAYARAMAN K

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B.Tech, B.Tech – Information Technology

Address : SSN COLLEGE OF ENGINEERING, RAJIV GANDHI SALAI
(OMR), KALAVAKAM, CHENNAI, PIN – 603110.



Education

Sri Sivasubramaniya Nadar College of Engineering

B.Tech · B.Tech – Information Technology

2026

CGPA – 7.209/10

valivalam desikar polytechnic college

Diploma · engineering · nagai

2022

Percentage – 96%

st sebastian's high school

Class X · Science / SSLC · nagai

2017

Percentage – 94%

INTERN Experience

TATA Group - Voltas Limited | [Certification](#)

IT Support Junior Engineer · BMS Automation Test · Full Time

Jul 2025 – Present

Tynampet, Chennai

• During my internship at Voltas Limited, I analyzed BMS communication protocols like Modbus and BACnet, and studied peer-to-peer IP communication within automation systems. I developed a web-based automation tool to monitor and control panel activities, enhancing operational efficiency.

• This project improved real-time equipment tracking and reduced manual work. I also gained insights into Voltas's corporate culture, focusing on innovation, sustainability, and smart automation practices. The experience strengthened my skills in networking, web development, and industrial system integration.

Projects

Bridge Game Mini Project | [LiveDemo](#)

DSA PROJECT TEAM · Python, JavaScript, HTML, CSS

Feb 2024 – Present

binomial heap extraction

• Contributed to GitHub management, documentation, and binomial heap extraction.

• Developed UI to enable interaction between different scenes

CO2 EmissionDetection Using Deeplearning | [GitHub](#)

SDP-2 · Python, JavaScript, HTML, CSS

Aug 2024 – Jun 2024

ML

Purpose: Build and deploy a robust real-time system that classifies carbon monoxide (CO) levels from time-series sensor data to enable accurate monitoring and timely safety alerts

• 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.

ComputerVision-Road Anomaly Detection: speed bumps, potholes, cracks |

Jan 2025 – May 2025

[GitHub](#)

• Python, JavaScript, HTML, CSS, Flask

ML

• 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.

Mersenne | [Live Demo](#)

· python,flask,html/css

• Purpose and scope: Advanced system to discover Mersenne primes (and derive perfect numbers) by combining Lucas–Lehmer testing with pattern-based range prediction; includes quick-start search, visual analysis, and real-time monitoring.

• Performance and operation: Multi-threaded, FFT and AVX2/AVX-512 optimizations (optional CUDA GPU), early termination and batch processing, progress/resume and output to JSON/TXT; configurable via mersenne_search_config.json, with target search ranges emphasized near **85M–90M** exponents and tools for performance monitoring.

Mar 2025 – Present

p95code upgraded by recognize pattern

DQN-Snake game -Project(reinforcement Learning) | [Live Demo](#)

mini project · Flutter,Dart

Purpose: Create an interactive Snake game that demonstrates and evaluates reinforcement learning by training a Q-learning/DQN agent to play autonomously, while providing a polished user experience (manual mode, persistent scores/settings, themes, sound) to showcase AI gameplay alongside human control.

· 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 sharedpreferences.Focused on clean UI, sound effects, and theme switching for better user experience.

Jan 2025 – Present

ML

Awards

College first award and certification | [Certification](#)

· DOTE · Valivalam Desikar Polytechnic College

Sep 2022

Certifications

Mathematics State First Certification | [Certification](#)

· Valivalam Desikar Polytechnic College

Sep 2022

Scout Captain | [Certification](#)

· St sebastian High School

Jan 2014

3D printing programming and Design course | [Certification](#)

· Mahindra Company

Jan 2022

Competitions

CodeSprint | [Certification](#)

· Winner · CodeClash–The Battle of Logic and Code

Jul 2025

DSA MasterMind | [Certification](#)

· winner · CodeClash

Jun 2025

Coding Competition | [certification](#)

· participation · DTC team- Coders Arena–The Battle of Algorithm

Jun 2025

Treasure Hunt | [certification](#)

· participation · Samsung Galaxy AI

Jun 2025

Mobilation 4.0 | [certification](#)

· participation · VolksWagen

Jan 2025

Scholarships

Merit Cum Means | [Certification](#)

· SSN COLLEGE OF ENGINEERING

Sep 2024

Extra Curricular Activities

Valley Ball

Gym,Batminton

Skills

Programming Languages: Python, SQL, html/css, JavaScript,C,Ruby, Flutter, Dart

Tools and Technologies: Google Cloud

Languages and Frameworks: Kali Linux, Ubutu,

Languages

English [Professional Working Proficiency], Tamil [Native Proficiency]

Links

[LeetCode](#), [LinkedIn](#), [GitHub](#), [Stack Overflow](#), [Behance](#)