Prashant Singh

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Education

Vellore Institute of Technology, B-Tech in Computer Science. August 2021 – June 2025

- CGPA: 8.06

Sahara Public H.S School March 2019 – April 2020

- Percentage: 82.4

Jnv Arniyakalan Shajapur March2017 – May 2018

- Percentage: 66

Technologies

Languages: C++, SQL

Technologies: Database Management System (DBMS), Object Oriented Programming (OOPs)

Experience

MERN Full Stack Internship August 2023 – November 2023

Led improvements in application scalability and reliability, resulting in a 30% increase in user engagement and satisfaction.

Engineered and fine-tuned RESTful APIs using Express.js and Node.js, facilitating seamless server-side communication and improving response times by 25%.

Revamped Git workflows by utilizing Git, improving team efficiency and reducing deployment errors by 15%.

Implemented robust authentication mechanisms with JWT (JSON Web Tokens), safeguarding sensitive user data and supporting secure access for over 1,000 active users.

Projects

Blood Cell Classification

CNN, MobileNetV2, TensorFlow, Keras model Designed and trained high-performance ML models by refining datasets, ensuring precise classification of blood cell types from microscopic images, resulting in a 25% increase in learning capacity and an 18% improvement in classification accuracy.

Architected an advanced image classification pipeline using convolutional neural networks (CNN), enhancing accuracy in the identification of cells which are in blood samples, achieving an impressive precision rate of 95% on test datasets.

Configured CNN architectures, including VGG16, ResNet, and custom-designed CNNs, tailored to maximize accuracy and efficiency in image classification tasks.

Optimized deep learning architectures including VGG16 and ResNet for image classification tasks, enhancing accuracy in identifying blood cells while processing up to 20,000 images per hour with high reliability.

Crime Rate Prediction

K-Means Clustering for data-driven insights, integrated Google Maps JavaScript API for geospatial mapping, and enhanced responsive frontend (HTML/CSS) and scalable backend (Node.js, npm) for real-time navigation solutions.

Developed a data-driven crime prediction system using K-Means clustering to analyze crime data, identifying high-risk areas and mapping crime hotspots with an accuracy rate of 90%.

Utilized predictive analytics techniques to identify crime patterns, creating predictive models that informed police deployments successfully reduced crime hotspots by 20% and improved public safety through targeted interventions.

Strengthened public safety measures by providing actionable insights to law enforcement agencies, resulting in a 40% reduction in crime rates and i Augmented public safety.

Analyzed crime patterns and mapped hotspots, enabling targeted policing strategies that increased public safety by 40 enforcement resources.

Certification

- MERN Full Stack Internship Program Ethenus – Completed December 2023

Hobbies

- Physical fitness
- Playing guitar (Music)