# SHARATH S T

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#### **SUMMARY**

Highly motivated Student with hands-on experience in managing all phases of project life cycles. My Strengths lie in effective problem-solving, exceptional organizational skills, and keen ability to manage multiple tasks simultaneously. Demonstrated success in fostering team collaboration and delivering impactful results on assigned projects. Known for analytical acumen, adaptability, and strong communication skills.

#### EDUCATION

Master of Information Technology, University of New South Wales, Sydney	Expected 2027
Bachelors of Technology, PSG College of Technology	2025
Information Technology	
Grade X, Stanes School ISC	2021
Grade XII, Stanes School ICSE	2019

#### **SKILLS**

Programming Languages: Java, Python, C, JavaScript, TypeScript, SQL (OracleSQL), HTML/CSS Web & Frameworks: React.js, Node.js, Express.js, MongoDB, Tailwind CSS, Bootstrap, REST APIs AI/ML & Tools: TensorFlow, PyTorch, Keras, OpenCV, YOLOv8, EasyOCR, Scikit-learn, Pandas, NumPy

Dev Tools: Git, GitHub, Docker (basics), VS Code, IntelliJ, Eclipse, Postman, Firebase

Soft Skills: Leadership, Team Collaboration, Communication, Problem Solving, Time Management

#### **EXPERIENCE**

## Project Internship — React, MongoDB, NodeJS, ExpressJS Ezio Solution Private Limited

Dec 2023 - May 2024 Coimbatore, India

- As a part of the Industrial Project in Curriculum, completed this guided project internship in Semester VI of my Bachelor's Degree
- Led a team in developing and maintaining full-stack application, ensuring high performance and user satisfaction.
- Gained valuable experience working within a Web Development industry, applying learned concepts directly into relevant work situations.

## **PROJECT**

• Smart Parking Guidance System using Microservices and Deep Learning YOLOv8, EasyOCR, MongoDB, MERN, Tailwind, Razorpay

- Developed a real-time smart parking system using YOLOv8 for license plate detection and vehicle classification with 96% accuracy score.
- Designed a microservice architecture with 9 independent services for scalability and modularity.
- Built a responsive MERN stack frontend integrated with Tailwind CSS for live parking status, history logs, and user authentication.
- Automated vehicle entry and exit using OCR and QR-based session generation for secure, contactless access.
- Implemented JWT-based authentication and Bcrypt password hashing for role-based user/admin access.
- Enabled dynamic fee calculation and Razorpay payment integration based on parking duration and vehicle type.

- Achieved real-time camera-based space detection with MongoDB sync for optimized parking management.
- Designed an admin dashboard with full CRUD access over vehicles, payments, and slot configurations.
- Compared YOLOv8 with MobileNet, ResNet50, and PSO models, achieving superior performance in dynamic environments.
- Ensured robust system performance with high accuracy, precision, and recall, suitable for Smart City deployment.

### • Coimbatore Bus App

React Native, Expo, SQLite

- Developed a simple cross-platform mobile application using React Native and Expo for accessing local bus information in Coimbatore.
- Implemented a local SQLite database to store and manage bus routes, schedules, and stop details.
- Designed an intuitive user interface for efficient searching and viewing of bus information.
- Focused on providing essential details for commuters to navigate Coimbatore's local bus network.

#### **PUBLICATIONS**

## • Smart Parking Solutions

- Co-authored a comprehensive review paper analyzing AI and deep learning models in smart parking and urban traffic systems.
- Explored and compared cutting-edge technologies like YOLO, CNNs, IoT, GANs, and reinforcement learning for real-time parking solutions.
- Discussed challenges such as scalability, privacy, and computational constraints, with proposed directions involving federated learning and edge AI.

## **PORTFOLIO**

• Personal website: **portfoliosharath.vercel.app** – Features project demos, code snippets, technical blogs on deep learning and full-stack development.

## **COURSEWORK**

- Data Structures and Algorithms (DSA), Database Management Systems (DBMS), Object-Oriented Programming (OOP), Operating Systems (OS), Computer Networks, Software Engineering
- Machine Learning, Artificial Intelligence, Deep Learning, Internet of Things (IoT), Computer Vision, Cloud Computing, Cybersecurity
- Web Technologies, Mobile Application Development, Data Analytics, Data Science, Information Security