# SHARATH S T

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#### **SUMMARY**

AI/ML Enthusiast and Full Stack Developer currently pursuing postgraduate studies, with practical experience in Python, YOLOv8, EasyOCR, TensorFlow, and scikit-learn. Skilled in developing AI-powered solutions and deploying machine learning models. Also experienced in the MERN stack, RESTful APIs, and Tailwind CSS. Strong foundation in computer vision, OCR systems, and cloud deployment. Demonstrated ability to build intelligent applications through agile development. Seeking opportunities in AI-driven web development, computer vision, and cloud-based ML integrations to apply and expand my skills.

#### **EDUCATION**

Master of Information Technology, University of New South Wales, Sydney	Expected 2027
Bachelor of Technology in Information Technology, PSG College of Technology, India	2025
Grade XII (ISC), Stanes School, Coimbatore	2021
Grade X (ICSE), Stanes School, Coimbatore	2019

### **SKILLS**

Programming Languages: Java, Python, C, JavaScript, TypeScript, SQL (OracleSQL), HTML5/CSS3

Web Technologies & Frameworks: React.js, Node.js, Express.js, MongoDB, Tailwind CSS, REST APIs

AI/ML & Computer Vision: TensorFlow, Keras, Scikit-learn, Pandas, NumPy, OpenCV, YOLOv8, EasyOCR

Tools & Platforms: Git, GitHub, Docker (Basics), Firebase, Postman, VS Code, IntelliJ IDEA, Eclipse

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

### **EXPERIENCE**

# Project Intern – Full Stack Development (MERN)

Dec 2023 – May 2024 Coimbatore, India

Ezio Solution Private Limited

- Completed a 6-month guided industrial internship during Semester VI as part of the undergraduate curriculum.
- Led a student team to design and implement a full-stack web application using React.js, Node.js, Express.js, and MongoDB.
- Focused on building scalable REST APIs, secure authentication, and dynamic frontend components aligned with user requirements.
- Applied agile development practices and version control using Git, enhancing team collaboration and code quality.
- Gained real-world experience in delivering production-ready features within the Web Development domain.
- Project Demo: Youtube Demo

#### PROJECTS

Smart Parking Guidance System (Microservices + Deep Learning) YOLOv8, EasyOCR, MongoDB, MERN Stack, Tailwind CSS

• Built an AI-driven smart parking system using YOLOv8 (96% accuracy) for license plate detection and EasyOCR for real-time recognition.

- Engineered 9 microservices for OCR, authentication, API gateway, logging, and license plate recognition with modular REST APIs.
- Developed a secure, responsive MERN stack web app with Tailwind CSS for live slot visualization, vehicle status, and QR-based entry/exit.
- Implemented an admin dashboard with full CRUD support to manage users, slots, logs, and vehicle data in real time.
- Benchmarked YOLOv8 against ResNet50, MobileNet, and PSO-based models under diverse lighting and congestion conditions.
- Demo: YouTube Video

## Coimbatore Bus App – Public Transit Companion

React Native, Expo, SQLite

- Created a cross-platform mobile app to display real-time local bus routes, stops, and schedules.
- Used SQLite for efficient offline data storage and retrieval; added route filters and nearby stop search.
- Designed a minimal, responsive UI with React Native for improved commuter experience.
- Demo: Youtube Demo GitHub: Coimbatore Bus App

## MERN Stack Todo App

MongoDB, Express, React, Node.js, Tailwind, HTML5

- Built a full-stack todo app with CRUD operations, and task status tracking.
- Designed a clean UI using HTML5 and Tailwind CSS; implemented RESTful APIs and session handling.
- Stored and managed user data in MongoDB with validation and persistent storage.
- Demo: Youtube Demo GitHub: Todo App

## **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.

### **CERTIFICATIONS**

# Microsoft Python Development Professional Certificate

- Python Programming Fundamentals Credential
- Data Analysis and Visualization with Python Credential
- Automation and Scripting with Python In Progress
- Web Development with Python Credential
- Advanced Python Development Techniques Credential
- Project Development in Python Credential