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
Ezio Solution Private Limited *Coimbatore, India*

- 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

PUBLICATIONS & INTELLECTUAL PROPERTY

- **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.
- **Patent Pending – Sensor-less Smart Parking System**
  - Invented a camera-based smart parking guidance system using computer vision and microservice architecture.
  - Enables real-time space monitoring without traditional sensors; emphasizes modularity and scalability.
  - Provisional patent filed in 2025; technical details remain confidential pending approval.

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
- Web Development with Python – Credential
- Advanced Python Development Techniques – Credential
- Project Development in Python – Credential