THARANIKKUMAR K

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Computer Science Undergrad — Software Developer — Full-Stack Engineer — AI/ML Enthusiast
Skilled in Python, Java, and C; well-versed in data structures, algorithms, OOP, and software architecture.
Experienced in building scalable web platforms, deploying ML models, and integrating cloud-native APIs.

Education

SRM University　　　　　　　　　　　　　　　　　　　　　　**Sep 2022 – May 2026**
B.Tech – Computer Science and Engineering with Specialization in Artificial Intelligence　　*Tiruchirappalli, Tamil Nadu*
and Machine Learning.

CGPA: 9.18

Experience

MoE's Innovation Cell, AICTE　　　　　　　　　　　　　　**October 2024 – January 2025**
Web Development Intern　　　　　　　　　　　　　　　　　　　　　*AICTE HQ, New Delhi*

- Developed web apps using **React.js** and **PHP** that reduced load time from 5s to 2s.
- Designed and optimized **MySQL** database schemas for scalability, maintaining data integrity and reducing query time by **40%**.
- Oversaw **GitHub** protocols for branching and reviews among a team of 3 developers.
- Conducted comprehensive testing and debugging, ensuring **99.9% uptime**.
- Inherited **high-impact modules**, such as data visualizers and user dashboards, which were used as models for subsequent initiatives.

Projects

PROJEX | *Kotlin, JavaScript, Android Studio, Firebase*　　　　　　　　　　　**April 2023**

- Upgraded an app to simplify project-based learning with guided steps for **5+ curated projects**, boosting user engagement by **20%**.
- Enabled users to access project resources, including source code and materials, enhancing **hands-on learning** by **25%**.
- Integrated **Firebase** and made a responsive UI in Android Studio, **honing** the experience for over 100+ users.
- Published the app on **Google Play Store** with 100+ downloads and a 4.5+ star rating.

AutoInspect AI | *Python, YOLOv8-seg, Gemini AI, Flask, Streamlit*　　　　　　　**May 2025**

- Achieved 92.3% mAP using **YOLOv8-seg** trained on 500+ labeled images across 6 damage types: dent, scratch, crack, broken glass, lamp, and flat tire.
- Fused **Gemini 1.5 Pro LLM** to provide cost estimations and repair advice, improving quote accuracy by **40%**.
- Built an interactive **Streamlit** UI for uploading images, showing damage overlays, and exporting PDF reports with cost details.
- Activated live detection via **Roboflow API**, with fallback to ONNX local inference for offline usage.
- Demonstrated **Dockerized** full-stack (Flask + Streamlit + MySQL), cutting setup time by **70%** and supporting JWT-authenticated APIs.

Technical Skills

Languages: Python, Java, Kotlin, C, JavaScript, TypeScript, PHP, HTML/CSS, XML, MySQL
Libraries/Frameworks: ReactJS, Flask, Streamlit, YOLOv8, Tailwind CSS, Firebase, OpenCV
AI/ML Tools: scikit-learn, Gemini AI, Roboflow API, ONNX, Docker
Developer Tools: VS Code, Eclipse, Android Studio, GitHub
Platforms/Technologies: Linux, Firebase, Git, REST APIs

Certifications

- Micro-Certification - Welcome to ServiceNow (August 22, 2024)
- Deloitte - Data Analytics Job Simulation (July 13, 2025)
- IBM - Introduction to Containers w/ Docker, Kubernetes & OpenShift (May 4, 2025)