NEHA THOMAS

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EDUCATION

University of Southern California — Los Angeles, CA
Master of Science, Computer Science — August 2025-May 2027
- Relevant Coursework: Data Structures and Algorithms, Database Systems

Rajagiri School of Engineering & Technology — Kerala, India
Bachelor of Technology (Honors), Information Technology — November 2021-May 2025
- GPA: 9.47/10

SKILLS

Programming:	Python, R, C, Java, JavaScript, HTML/CSS
Web frameworks:	React, Node, Express, Flask, RESTful APIs, Figma (UI/UX), React Native, UI, UX
Database:	MongoDB, MySQL, SQLite, Tableau, Pandas, NumPy, NoSQL
AI & ML:	Deep Learning, TensorFlow, Keras, PyTorch, Neural Networks, Scikit, XAI
Cloud & Platforms:	Render, GitHub Actions
Relevant Courses:	Database Management, Operating Systems, Web Application Development, Data Analytics, Artificial Intelligence, Cryptography and Network Security, Computer Vision, Internet of Things, Soft Computing

WORK EXPERIENCE

NeST Digital — Kerala, India
Intern — October 2023-October 2023
- Created and maintained small Python projects, building modules for tasks including file handling and user interaction to support daily development needs
- Refactored Python scripts into modular, reusable functions and classes, improving code clarity and simplifying debugging and future enhancements

ACADEMIC PROJECTS

PHISHNET - Phishing URL Detection & Explainability — United States
Personal Project — July 2025-July 2025
- Fine-tuned DistilBERT with Python and HuggingFace Transformers on 50k+ URLs, achieving 94% accuracy, and integrated GPT-4 for explainability, clarifying model decisions and reducing false positives
- Developed a full-stack detection app with React, TypeScript, and FastAPI, delivering real-time REST API responses in under 300ms for a seamless user experience
- Led deployment using Docker and CI/CD pipelines on Render, coordinating team efforts to accelerate releases by 60% while ensuring reliable production operations

MALDROID - Android Malware Detection System — Kerala, India
Academic Project — September 2024-May 2025
- Designed a hybrid malware detection system using Android, Python, and TensorFlow, combining static and dynamic analysis to achieve 91.2% accuracy on 5,000 APKs.
- Communicated technical insights to users via a real-time web interface constructed with HTML, CSS, and JavaScript, integrating LIME for explainable AI to highlight 150+ suspicious features and establish trust in model predictions
- Co-authored a research paper and served as spokesperson, presenting Maldroid's advanced computing techniques to an audience of 150+ researchers at ACCTHPA 2025 (July 2025); paper currently under IEEE review

SUPPLY MANAGEMENT - Queueing-Based Parcel Packing Optimizer — Kerala, India
Academic Project — January 2025-May 2025
- Modeled single and dual-conveyor belt workflows leveraging Python and Flask, and built a real-time dashboard with HTML, CSS, and JavaScript, cutting worker idle time by 20% and improving supply order efficiency
- Collaborated closely with team members, deploying Python dashboard visualizations to communicate technical insights and translate models into actionable operational improvements

SPACEUP - Real-Time Parking Management System — Kerala, India
Academic Project — January 2024-May 2024
- Collaborated with a 4-member team using MongoDB, Express, React, Node.js, HTML, CSS, and JavaScript (MERN Stack) to implement role-based access and live updates for 30+ parking slots
- Developed automated status polling and admin/user access features in the MERN Stack to ensure up-to-date occupancy visibility
- Designed a Python-based carpooling module with real-time commuter lookup and route matching, enhancing user experience; coordinated closely with a 3-member team to combine module

CERTIFICATIONS

- NPTEL Certifications: Python for Data Science, Cloud Computing, Computer Networks and Internet Protocol