# Thanesh Nagarajan

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# **PROFESSIONAL SUMMARY**

Result-driven Developer with a passion for innovation, problem-solving, and developing scalable technology solutions. Have practical experience across software, web, and app development, as well as robotics, machine learning, and cloud technologies. Proficient in Java, Python, JavaScript, CSS, HTML, and SQL. Skilled in designing scalable web applications, building predictive models using machine learning, and managing databases with tools such as AWS Cloud, Firebase, and Python-based machine learning frameworks. Adept at translating complex challenges into actionable solutions, with strong collaboration, communication, and project management abilities to drive results in dynamic, fast-paced environments.

## WORK EXPERIENCE

## Junior Associate (Robotics Teacher) | Kalam Institute for Technical Education

- Improved team efficiency with thorough organization of documents, teaching materials, and by conducting meeting.
- Successful project completion and won competitions by tracking progress and training team members regularly.
- Conducted hands-on training sessions on Arduino-based robotics, covering sensor integration, motor control, and basic microcontroller programming.

### Web Designer and Developer | The D Cruz Digital

- Developed and deployed the company's responsive website enhancing brand visibility and user interaction.
- Integrated SEO best practices and performance optimization techniques (lazy loading, minification, CDN) to increase traffic.
- Boosted site traffic by 30%+ through performance tuning and data-driven UI/UX enhancements in collaboration with the digital marketing team, ensuring alignment with branding and user behavior analytics.

## CERTIFICATION & ACHEIVEMENTS

AWS Certified Cloud Practitioner course – Udemy, AWS Certified CLF-C02 (Cloud Practitioner) – AWS, JAVA Certification - Hacker Rank, AI agent (beginners) – Skill-Up, Google DevFest Hackathon – Second place.

## PROJECTS

## Improving Human Robot interaction with Action Prediction

The primary objective is to process and interpret time-series data that represent various physical activities and predict human actions with high accuracy. By leveraging advanced machine learning techniques, the system identifies patterns in human behavior, making it useful for applications in surveillance, healthcare monitoring, sports analytics, and human-computer interaction. Technologies Used: • Feature Extraction. • K-Means Clustering. • Machine Learning. • Gaze and Action Prediction

#### Book-Cycle | Android app with Firebase DB for book exchange.

Book-cycle is a mobile application designed to simplify the process of buying and selling books. The app offers an intuitive platform where users can list books for sale and search for books to purchase. The application includes comprehensive database functionalities to store and manage user and book data. Technologies Used: • Database: Integrated backend database (Firebase Database), • Search Functionality

#### Stocky | Real time stock tracker with ML-powered prediction

Stocky is an innovative web-based application designed to provide users with comprehensive tools for real-time stock tracking, market analysis, and future price prediction. The platform empowers users to stay informed about the latest market trends by offering live stock price updates, relevant financial news, and predictive insights powered by machine learning algorithms. Technologies Used: • API (Yahoo Finance. • Web Scraping (BeautifulSoup). • Machine Learning

#### Robotic bots | Arduino based robots and bots for automation and sensor driven tasks

Collection of project involves designing and developing programmable robotic bots using platforms like Arduino Uno. These bots are tailored for tasks such as obstacle avoidance, line following, remote control via Bluetooth, voice commands, and maze-solving operations. Technologies Used: • Microcontroller Programming, • Sensor Integration. • Motor Control

## **EDUCATION**

Master of Science, Computer Science (M. Sc), Lakehead University.

Bachelor of Science (B.E), Computer Science, Panimalar Engineering College

12/2022 to 05/2023

04/20224 to 10/2024