

Thamidu Nadun

Full-Stack Developer

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LinkedIn



GitHub



Blog

Summary

Self-taught full-stack developer and undergraduate technologist with strong expertise in React, Spring Boot, and Node.js. Skilled in backend development, REST APIs, database integration, and IoT systems with ESP32. Experienced in AI/ML model development, including practical applications such as recommendation systems. Continuously expanding knowledge in Three.js, WebXR, Rust, cybersecurity, and cloud technologies, with a focus on building functional and reliable software solutions.

Experience

Full-Stack Developer

Apr 2025 - May 2025

YASMEEN (PVT) LTD

Freelance

- Developed a bilingual (EN/JP) invoice automation platform using React, Flask, and Playwright, **replacing a manual Excel-based workflow** for a Japan-focused tourism company.
- Reduced PDF generation latency from 2-3 minutes to 6-7 seconds (~95%) by implementing persistent Chromium rendering and eliminating browser startup overhead.
- Automated a **1 hour invoice processing workflow into a 3 minute email-driven pipeline**, including data extraction, invoice generation, PDF rendering, and email delivery.
- Built language-aware email parsers for English and Japanese correspondence, enabling automated invoice creation from unstructured multilingual emails.
- Designed reusable headless rendering services and workflow automation components that improved scalability, reliability, and operational efficiency.
- Built an **AI powered translation and data normalization pipeline** that *converted Japanese itinerary information* into structured JSON, enabling automatic generation of driver itinerary PDFs from email content.

Skills

React.js, Three.js, WebAR, REST API Development, MySQL, Machine Learning, Desktop App Development, Spring Boot, IoT Development, AWS, GCP, Team Management, Problem Solving

Projects

Personal Blog

Nov 2025 - Jan 2026

Full-Stack Project

- Engineered a **full-stack blogging platform with a RESTful backend and SPA frontend**, supporting posts, tags, and user management.
- Implemented **JWT-based authentication and role-based access control (RBAC)** for admin, author, and reader workflows.
- Designed normalized database schemas and optimized API queries, enabling fast content retrieval and smooth UI rendering.

Movie Recommendation System

Sep 2025 - Oct 2025

Machine Learning

- Built an **unsupervised recommendation pipeline** using *K-Means, Hierarchical Clustering, and Gaussian Mixture Models*
- Performed **data preprocessing, feature engineering**, and cluster evaluation to improve recommendation relevance.
- Compared multiple models and selected optimal configurations based on silhouette score

Greenhouse Monitoring System

Dec 2024 - Jan 2025

IoT

- Developed an end-to-end IoT monitoring and control system using **ESP32 and React.js**
- Collected and streamed environmental data (temperature, humidity, soil moisture) to a live web dashboard.
- Allowed remote actuation of pumps, fans, integrating embedded devices with web technologies.

Notedek – Markdown Presentation

Nov 2025 – Jan 2026

SaaS

- Developed a SaaS tool that converts Markdown into interactive HTML presentations.
- Enabled importing content directly from GitHub URLs, automating presentation creation.
- Focused on developer productivity by simplifying slide authoring workflows.

Malware Development/AV Evasion

Feb 2026 – Mar 2026

cyberSecurity

- Developed a Windows-based keylogger in C as part of malware development and security research activities.
- Implemented keystroke capture, logging, and persistence mechanisms using native Windows APIs.
- Explored **static detection evasion techniques such as string obfuscation and signature reduction** to study antivirus detection methods.
- Analyzed how security products identify and respond to malicious behavior through controlled testing and experimentation.

tinyWebC – HTTP Server from Scratch

Mar 2026 – Apr 2026

Low-Level System

- Engineered a **web server in C** from first principles, handling TCP connections, HTTP request parsing, and response generation.
- Implemented **static file serving with MIME type resolution**, enabling browsers to correctly render HTML, CSS, JavaScript, and image resources.
- Developed core server components including socket management, file I/O, string processing, and dynamic response construction.
- Applied systems programming principles such as memory management, network communication, and protocol implementation to build a functional web server with minimal dependencies.

Whatsapp Bot

Apr 2025 – Apr 2025

Automation

- Designed a command-driven automation platform supporting text, media, and external knowledge services.
- Applied modular slash commands enabling users to retrieve web images, generate AI images, fetch scientific data, and access dictionary definitions.
- Created reusable command routing and execution pipelines, making new features easy to plug in.

Presentee – Presentation Highlighter App

Apr 2025 – May 2025

SaaS

- Developed Presentee, a cross-platform desktop app that enhances live presentations with stylish, gradient-highlighted sections, targeting presenters who want visually engaging presentation.
- Built with Electron, HTML, CSS, and JavaScript, enabling smooth overlays, animated borders, and interactive presentation enhancements.

Education

BSc (Hons) in Information Technology Specialising in Cyber Security

2024 – 2027

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