

MATHEW THOMAS

Software Engineer — Backend & Distributed Systems

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EDUCATION

B.Tech, Computer Science and Engineering

2022 – 2026

Christ (Deemed to be University), Bangalore, Karnataka · CGPA 7.95/10

- Relevant coursework: Data Structures & Algorithms, Design Patterns, Analysis of Algorithms, Computer Networks, Computer Organization & Architecture, Compiler Design.

LEADERSHIP & ACTIVITIES

Executive Committee Member — IEEE Student Branch

Christ (Deemed to be University)

- Orchestrated a 2-day technical event for ~200 participants, leading a 50-person volunteer team through end-to-end scheduling, logistics, and execution.
- Facilitated online and offline research paper presentations from global participants across countries, managing diverse technical requirements.

EXPERIENCE

Software Engineer Intern

12/2025 – 02/2026

eMudhra, Bangalore, India

- Built and unit-tested a scalable MFA system serving 100,000+ users in Java and Spring Boot, hardening authentication across enterprise web and mobile login workflows.
- Cut authentication failures 83% by developing backend auth services for web and mobile login flows.
- Raised authentication success rate 15% by debugging and fixing OTP validation edge cases in the Spring Boot service.

Full Stack Intern

04/2025 – 05/2025

Inginiithra Technologies, Bangalore, India

- Developed and deployed RoboSpark, a full-stack enterprise web app (React, Node.js, MySQL, REST APIs), streamlining client service delivery and cutting processing time by 15%.
- Cut registration processing time ~30% vs. the manual workflow by automating the end-to-end registration pipeline.
- Built the Node.js/MySQL backend handling authentication, registration, and API request routing for the registration pipeline.

Intern

04/2024 – 05/2024

lolite Technologies, Bangalore, India

- Developed interactive front-end modules for an Attendance Management System using React, JavaScript, and Node.js, achieving reduction in data entry errors.
- Integrated the React front-end with the Node.js backend, owning the API layer that connected the two.

PROJECTS

PenTest Automation Framework — Containerized Security Scanning Platform

- Engineered an end-to-end penetration-testing automation platform orchestrating 10+ Dockerized security tools with async job coordination.
- Re-architected scan orchestration and parser layer, reducing scan time by 80% (12-15 min to 2-3 min) via async execution.
- Optimized report pipeline and Docker build caching, cutting report generation time by 83% (~30s to ~5s).
- Implemented failure detection for Docker build caching and parser errors, maintaining 30+ hours of system uptime.

Symonds — Distributed Systems Monitoring Suite

- Developed an end-to-end distributed observability platform, including a C daemon for real-time metrics and a Go API with SQLite storage, handling thousands of metric records per minute.
- Developed a diagnostic REST endpoint for cluster-style health inspection, enabling real-time monitoring for 8+ clusters.
- Implemented the Go REST API on SQLite with schema design compatible for PostgreSQL migration; prototype collects from clients every 5 seconds, keeping each cycle to a few milliseconds of CPU time.

TECHNICAL SKILLS

Languages: Go, Python, C, C++, C#, Java, JavaScript, SQL, Bash

Backend & Web: REST APIs, Node.js, Flask, React, Angular, authentication / MFA, concurrent services

DevOps & CI/CD: Docker, GitHub Actions, Ansible, container-based deployment

Databases: PostgreSQL, MySQL, SQLite; schema design and migration

Systems & Observability: Linux (Kali, Ubuntu), structured logging, metrics collection, time-series storage, HTTP health checks

Security & Networking: Secure coding, OWASP awareness, CVE analysis, Wireshark, TCP/IP, HTTP/REST, DNS

CS Foundations: Data Structures & Algorithms, Design Patterns, Computer Networks, Computer Organization & Architecture, Compiler Design

CERTIFICATIONS

- Cisco Networking Academy — Introduction to Cyber Security (Jun 2023)
- Cisco Networking Academy — Exploring Networking with Packet Tracer (Jun 2024)
- Cisco Networking Academy — Networking Basics (Sep 2024)
- Cisco Networking Academy — Introduction to IoT (Nov 2024)
- MathWorks — MATLAB Onramp (Jul 2023)