RONALD ROMMEL MYLOTH

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Education

Northeastern University   **Sep 2024 – May 2026**
Master of Science in Computer Science — GPA: 4.0

– Coursework: Algorithms, Distributed Systems, Cloud Computing, Database Management Systems, Object-Oriented Design

Cambridge Institute of Technology   **Aug 2019 – Jun 2023**
Bachelor of Engineering in Computer Science — GPA: 8.27

– Coursework: Data Structures and Algorithms, Computer Networks, Web Development, Artificial Intelligence, Software Engineering, Operating Systems

Experience

Tata Consultancy Services Ltd   **Jun 2023 – Jul 2024**
Software Developer   *Karnataka, India*

– Contributed to backend microservices development using Node.js and Express for Deutsche Bank applications, enhancing API functionality.
– Developed responsive frontend components with React and Redux, achieving a 30% improvement in page load times.
– Reduced drop-off 40% through error handling, caching, and breadcrumb navigation in React.
– Optimized MySQL database queries, reducing data retrieval latency by 15% for user-facing features.

Xurmo Technologies Pvt Ltd   **Aug 2022 – Nov 2022**
Software Developer Intern   *Karnataka, India*

– Built secure authentication services using Azure Active Directory in Node.js and Python applications, leveraging multi-tier architecture.
– Designed scalable middleware in Node.js to validate JWTs and enforce authentication flows.
– Developed and tested RESTful APIs to support efficient internal data pipelines across distributed systems.
– Achieved over 90% unit test coverage, significantly reducing post-deployment issues.

Projects

Decentralized Book Exchange System | *Node.js, Express, RabbitMQ, MySQL, AWS DynamodDB, Docker*

– Built scalable microservices platform with 6 independent services managing 25,000+ book records, 10,000+ user profiles, and exchange transactions with RESTful APIs and event-driven architecture.
– Containerized entire application stack using Docker Compose with MySQL and RabbitMQ, enabling seamless local development and production-ready deployment with service orchestration and health monitoring.
– Achieved 64% performance improvement by migrating from synchronous to asynchronous processing, reducing mean response time from 11.4ms to 4.1ms with 2.3× throughput increase under sustained load testing.
– Implemented RabbitMQ message queues with fanout exchanges for parallel user and book validation workflows, maintaining 99th percentile response time of 7.9ms and 100% success rate across 1,200+ concurrent requests.

Billio: Serverless Invoice Generator | *Node.js, React, AWS (Lambda, DynamoDB, S3)*

– Engineered a fully serverless invoicing platform with AWS Lambda, API Gateway, and DynamoDB, enabling real-time invoice creation, retrieval, and updates.
– Configured secure IAM roles and fine-grained policies to manage Lambda access to DynamoDB and S3 without compromising security.
– Deployed the React frontend on Render and integrated REST APIs to achieve a seamless end-to-end user experience.
– Implemented logging via AWS CloudWatch and load tested the system to handle 100+ concurrent requests with minimal latency.

Blood Vein Detection System (Patented) | *Python, Raspberry Pi, Machine Learning, OpenCV*

– Engineered a real-time machine learning-based prediction system to detect veins in obese patients using NIR and NoIR imaging.
– Enhanced image contrast by 40% using CLAHE; trained ML model for accurate vein location, reducing nurse retries and patient discomfort.
– Developed fault-tolerant data logging pipeline to ensure consistent operation under various lighting and user conditions.

Publications

System and Method of Blood Vein Detection Using Near Infrared Light — Intellectual Property of India (05/05/2023).

Technical Skills

Programming Languages: Java, Python, JavaScript, TypeScript, SQL
Databases: MySQL, PostgreSQL, MongoDB, DynamoDB
Frameworks & Tools: React.js, Node.js, Express, Docker, AWS (Lambda, S3, EC2), Git
Technologies: REST APIs, Microservices, OAuth2/JWT, Machine Learning, CI/CD