# Lakshmi Naveen Reddy Molom

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### **EDUCATION**

Masters in Computer Science, California State University, East Bay | GPA-3.8

Aug 2023 - May 2025

Data structures and Adv. Algorithms, OS design, Web Systems, Cloud computing, Adv Computer Networks, Cybersecurity, AI, Optimization Methods (Linear & Nonlinear Programming), System Design, Machine Learning.

Bachelor's of Engineering in Computer Science, VTU | GPA: 3.8

Aug 2018 - May 2022

#### **SKILLS**

Programming Languages: Java, Python, C++, C#, PHP, JavaScript, Bash, Powershell

Web Technologies | Frameworks: HTML5, CSS3, JSON, Bootstrap, TypeScript, React.js, Next.js, Node.js, Express.js, Spring Boot, Django, Hiberbate (ORM), Agile, Responsive UI Design

Databases | Cloud: Oracle Database, MySQL, SQL, MongoDB, Amazon Web Services (AWS S3, EC2, IAM, VPC, NAT Gateway, Load Balancer), PostgreSQL, NGINX, Render

Developer Tools | Visualization: Git, GitLab CI, Eclipse, JUnit, Docker, Visual Studio, Postman, Jira, Spark, Maven, Kubernetes, Splunk, Scrum, REST API, FastAPI, Microsoft Suite, Cron Jobs, GitHub Actions (CI/CD)

Other: Linux, Networking (TCP/IP, HTTP, DNS), Algorithms, Code Review, REST API Design, Distributed Systems, Operating system.

Security: JWT, AWS Secrets Manager, SSL/TLS, IAM policies, role-based access control

#### PROFESSIONAL EXPERIENCE

Student Assistant (Software Developer), California State University, East Bay

Sep 2024 - May 2025

- Developed and deployed scalable full-stack web applications using FastAPI (Python), React.js, and PostgreSQL, streamlining faculty project tracking and student resource workflows, reducing manual processes by 50%.
- Designed and optimized RESTful APIs, applying advanced data structures, algorithmic techniques, and OS fundamentals to improve backend performance and reduce response latency.
- Implemented CI/CD pipelines using Docker and GitHub Actions, deployed on AWS EC2, and integrated AWS Secrets Manager to securely manage credentials and environment configurations.
- Collaborated in a Scrum-based Agile team, contributed to live site operations, resolved production issues, and ensured secure communication using HTTP protocols and SSL/TLS certificates.

**Software Engineer,** Inventeron Technologies and business Solutions LLP

Aug 2022 - Jul 2023

- Refactored and optimized 50+ REST APIs using Node.js, Express.js, and MySQL, reducing average response time by 20% and lowering server costs by 15% across distributed clusters.
- Built real-time dashboards using React.js and Chart.js, integrated sales data from MySQL, and performed SQL-driven analytics to support inventory decisions—cutting excess stock by 15% and increasing turnover rate by 10%.
- Automated Docker-based deployments on AWS EC2 using shell scripts and cron jobs, improving operational efficiency by 25%, and implemented basic Terraform provisioning and NGINX-based load balancing.
- Integrated Splunk for log monitoring and alerting to proactively track performance metrics and resolve infrastructure issues in production environments.

Software Engineer Intern, Inventeron Technologies and business Solutions LLP

May 2022 - Jul 2022

- Developed data pipelines using Pandas and NumPy to process 1M+ rows, accelerating insights and enabling efficient model deployment in a cloud-based environment.
- Automated end-to-end ML model deployment on the cloud with Kubernetes and GitHub Actions, achieving 95% deployment success, reducing resource usage by 25%, and cutting deployment time by 30%.

## Freelance Web Developer, Self Employed

May 2020 – Aug 202

- Built and deployed cloud-native full-stack apps using React.js, Node.js, Django, Firebase, and Spring Boot, reducing deployment time by 40% and achieving 100% uptime during client testing.
- Launched a real-time food ordering system on Netlify and Render, enabling live order tracking for 100+ users and reducing sync latency by 60% via Firebase Realtime Database and RESTful APIs.

# **PROJECTS**

Mini Netflix Clone, React.js, Node.js, Express.js, MongoDB, AWS S3, JWT, HTML5, CSS3, JavaScript, Git, GitHub.

Built a full-stack streaming platform (Mini Netflix Clone) using React.js, Node.js, Express, and MongoDB, with secure JWT
authentication and AWS S3 for scalable video storage; optimized rendering and API performance led to 95% faster video load times
and boosted user engagement by 40% during testing.

Encrypted P2P File Sharing, AES, HTML, Bootstrap, MySQL, Docker, FastAPI, Python

• Developed a secure File SharingWeb App using FastAPI and a custom HTML frontend UI, enabling real-time file exchange via WebSockets and AES encryption; improved transfer latency by ~50% and enhanced user experience with a responsive interface.

Resource Allocation Optimizer for Cloud Workloads, Python, SciPy, PuLP, Pandas, AWS EC2, Flask, Docker, PostgreSQL

• Developed a cloud workload scheduler that used linear programming to minimize AWS EC2 instance costs under CPU and memory constraints, and applied nonlinear optimization to model and reduce latency-performance trade-offs, achieving 25% cost savings and 15% latency improvement across dynamic workloads.