SaiNithinGoud Kurremula

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Mobile: +1 (513)299-7174
Location: Cincinnati,Ohio

Education

- **University of Cincinnati** — Cincinnati, Ohio
  Master of Engineering - Computer Science — *August 2024 - Present*

Skills

Programming Languages:	Python, Java, JavaScript, C++, C, SQL
Frameworks and Libraries:	React, Angular, Django, Flask, FastAPI, Spring Boot, Node.js, Tailwind CSS
Databases:	PostgreSQL, MySQL, MongoDB
Cloud and DevOps:	AWS (EC2, S3, Lambda), Azure, Docker, Kubernetes, CI/CD Pipelines
Development Tools:	Git, GitHub, GitLab, Visual Studio Code, PyCharm, Postman
Software Development:	Algorithms, REST APIs, Microservices, Agile Methodologies, Machine Learning

Experience

- **Software Engineer Intern** — Hyderabad, India
  Skyinfolab Software Solutions — *Jan 2024 – June 2024*
  - Designed and developed scalable web applications using Python and Django, implementing modular architecture and performance optimizations to enhance maintainability and reduce response times.
  - Built and optimized RESTful APIs to enable seamless front-end and back-end communication, leveraging caching and query optimization to reduce API latency.
  - Developed interactive and responsive user interfaces using React, JavaScript, HTML, and CSS, integrating state management and asynchronous data fetching to improve performance and user experience.
  - Designed and implemented efficient database architectures with PostgreSQL and MongoDB, optimizing indexing, partitioning, and data caching to improve query execution speed.
  - Worked in an Agile development environment, collaborating with cross-functional teams, debugging production issues, and utilizing Git and CI/CD pipelines for seamless version control and automated deployments.

Projects

Distributed Cloud-Based Transaction Management System

- Implemented high-performance distributed transaction processing algorithms in Java, using Two-Phase Commit (2PC) to ensure consistency and integrity across a cloud-based system, improving transaction speed.
- Designed fault-tolerant database replication and partitioning strategies, reducing system downtime and increasing overall system reliability.
- Optimized transaction throughput with resource allocation techniques and complexity analysis, leading to a boost in processing efficiency.

Scalable Distributed Key-Value Store

- Developed a fault-tolerant distributed key-value store in C++, implementing consistent hashing and multi-tiered architecture to ensure high availability and scalability.
- Enhanced system robustness with intelligent fault detection and recovery mechanisms, ensuring seamless failovers.
- Applied linear programming for optimized sharding and resource allocation, reducing query latency and improving node performance in high-traffic environments.

MoneyScale – Smart Finance Management App

- Developed a finance management platform using Next.js, React, Node.js, and AWS, enabling real-time tracking of income, expenses, budgets, and investments.
- Implemented AI-powered insights for smart recommendations and predictive expense trends.
- Designed a secure cloud-based architecture with end-to-end encryption and OAuth authentication to ensure data privacy.
- Built multi-account support, automated transaction logging, and budgeting tools, improving financial tracking efficiency.
- Deployed on AWS for high scalability and seamless performance.

Scalable E-Commerce System

- Developed a full-stack e-commerce platform using Python (Django) and React.js, integrating real-time inventory management and fault-tolerant payment processing systems.
- Deployed on AWS (EC2, S3, Lambda) with load balancing and horizontal scaling, supporting higher traffic capacity during peak loads.
- Optimized database queries and caching strategies, reducing page load time, leading to a better customer experience.