Keerthi Prasanna Ramayanadha Gopinath

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SUMMARY

Master of Science candidate in Computer Science with 2+ years of experience designing scalable, distributed, multi-tiered systems and solving business challenges through innovative technologies. Proficient in building high-impact, fault-tolerant services using Python, Java, Node.js, and C# on AWS. Strong foundation in object-oriented design, data structures, and optimization (linear & nonlinear). Passionate about building customer-focused, industry-defining solutions through agile development and collaborative problem solving. Thrive in ambiguous environments and consistently deliver high-quality software at scale. Skilled at designing and coding the right solutions for large-scale, distributed systems in ambiguous problem spaces. Frequently build features and systems from scratch with a focus on innovation and customer impact.

WORK EXPERIENCE

Teaching Assistant
May 2024 - May 2025

State University of New York at New Paltz
USA

- Mentored 100+ students in C/C++ programming, focusing on software design, modular programming, algorithm implementation, and abstract problem solving.
- Led 25+ lab sessions on debugging, code optimization, and error handling, boosting student performance by 20%.
- Evaluated 50+ technical reports and presentations, enhancing students' technical writing and communication skills.

Software Dev Engineer - DevOps Intern
May 2022 - May 2023

Smart Desert
India

- Built 10+ REST APIs using Python and Node.js on a fault-tolerant, distributed microservices architecture, enabling 25K+ daily service requests.
- Deployed services to AWS EC2 with CI/CD pipelines, reducing deployment time by 40% and improving availability.
- Monitored infrastructure via CloudWatch, resolving 50+ performance bottlenecks to enhance system reliability.
- Contributed to the development and maintenance of scalable, distributed systems supporting critical DevOps workflows and cross-service communication.
- Led weekly code reviews and collaborated in Agile sprints to deliver 5+ production features, even under ambiguous requirements.
- Applied data structures and optimization algorithms to boost performance and reduce backend latency.

PROJECTS

Fake News Detection Using Sentiment Analysis
Jan 2025 - May 2025

- Developed a prediction system using TensorFlow, Hugging Face Transformers, and sentiment-aware NLP pipelines to classify fake news with 87% accuracy and reduce misinformation using explainable inference.
- Engineered scalable, fault-tolerant training pipelines with Airflow and GridSearchCV, incorporating custom indexing and storage layers to streamline deployment and reduce operational overhead by 35%.

Passport Management System
Jan 2024 - May 2024

- Developed a secure and scalable document verification platform using Flask, MySQL, and Linux with role-based access controls to enable authenticated access for citizens and government officials .
- Deployed on remote Linux servers with monitoring and logging , ensuring system uptime, fault tolerance, and easy maintainability through automation and efficient resource management , supporting 24/7 government operations .

Evaluation of Anti-Diabetes Profiles
Aug 2022 - May 2023

- Built a prediction system using Pandas, NumPy, SQL, and SciPy to analyze 10,000+ health records and identify lifestyle-related diabetes risks for clinical research .
- Designed a multi-tiered, easy-to-use analytics dashboard with Tableau and SQL-based ETL workflows enabling real-time insights and actionable decision-making for medical researchers .

Car Rental System
Jan 2022 - May 2022

- Built a full-stack rental system using C# frontend and Python backend with a relational database (MySQL) , optimizing SQL queries by 25% and improving data retrieval efficiency .
- Automated admin reporting with Python scripts, streamlining financial operations and saving manual effort.

TECHNICAL SKILLS

Programming & Database	: Java, Python, C++, C#, Node.js, JavaScript, SQL
Frameworks & Tools	: Express.js, React.js, RESTful APIs, Git, Postman, Docker, CI/CD
Cloud & DevOps	: AWS (EC2, CloudWatch), Linux Deployment, Bash scripting
Databases	: MySQL, SQL Server, NoSQL
Concepts	: Distributed Systems, Multi-tiered Architecture, Object-Oriented Design, Data Structures, Algorithms, Linear & Nonlinear Optimization, Agile, Debugging, Scalability

EDUCATION

State University of New York
Aug 2023 - May 2025

Master of Computer and Information Sciences

Relevant Courses: Advanced Data Structures & Algorithms, Distributed Systems, Machine Learning, Operating Systems, Object-Oriented Design,Cloud Computing.