Ramya Dabbara

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PROFESSIONAL SUMMARY

Highly motivated and detail-oriented Computer Science student with hands-on experience in **full-stack** development, **data analytics**, and process optimization. Skilled in building scalable applications, validating data, supporting change management initiatives, and working across cross-functional teams. Passionate about leveraging technology to drive innovation and improve user experiences.

EDUCATION

University of South Dakota

Master of Science, Computer Science

Sri Krishnadevaraya University

Bachelor of Technology, Computer Science and Engineering

SKILLS

• Front-End Development:HTML5, CSS3, JavaScript

- Programming Languages: Python, C, C++, Bash
- Back-End Development: Node.js, SQL/NoSQL Databases
- Data Analytics: SQL, (Pandas, NumPy), Data Validation
- Tools: Git, GitHub, Jira, Agile/Scrum methodology
- Change Management: Process Mapping, Workflow Optimization
- Software Development Lifecycle (SDLC)
- Strong Problem-Solving & Team Collaboration Skills

EXPERIENCE

Tech Mahindra

Bangalore, India Dec 2021-Nov 2024

Vermillion, SD

Jan 2025-Present

Anantapur, India

Aug 2018-Sept 2021

Associate Software Engineer

- Built, deployed, and optimized **Python and Spark-based ETL pipelines** using **Pandas** and **NumPy** to process 12TB of daily telecommunications data, supporting scalable backend services on **AWS** and **GCP** platforms.
- Designed and shipped secure RESTful APIs in Python and Kubernetes, seamlessly integrating with frontend
 applications like Flutter apps and enabling real-time communication across services.
- Integrated **PyTorch-based LLM models** into production environments, enabling generative AI capabilities for dynamic content generation at 99.99% availability across millions of users.
- Architected multi-tenant cloud infrastructure leveraging AWS S3 and TensorFlow, adaptable to GCP environments, accelerating model inference speed by 35% and improving fraud detection accuracy by 28%.
- Solved ambiguous data challenges through statistical model development, process documentation in Confluence, agile
 workflow tracking via JIRA, and proactive change management planning.

PROJECTS

AI Powered Resume Evaluation Tool

- Developed an ATS Resume Expert tool using **Google Generative AI (Gemini)**, **Python**, Streamlit and that evaluates resumes for ATS (Applicant Tracking System) compatibility using generative AI.
- Integrated Google Gemini API to analyze resume content, identify skill gaps, and suggest job-specific improvements.
- Built an interactive **Streamlit interface** enabling users to upload resumes and receive real-time feedback.
- Provided ATS compatibility analysis, skill gap identification, and resume optimization recommendations.

Cryptocurrency Price Prediction

- Developed a GUI-based application to predict cryptocurrency prices using 5 years of historical market data.
- Implemented and compared ML models (Linear Regression, Random Forest) to forecast price trends with improved accuracy. Integrated MySQL for backend data storage and Eclipse IDE for debugging and development.
- Enabled user input for date ranges and crypto selection; displayed predictions in real-time via Tkinter interface.

Adaptive Study Scheduler Using Reinforcement Learning

- Developed a personalized study planning system using **Q-learning** with function approximation to optimize learning paths based on simulated student performance and engagement.
- Designed a dynamic reward function balancing short-term engagement, long-term knowledge retention, and test score improvements.
- Modeled states using student history and learning preferences; actions included recommending topics, review sessions, and practice exercises.