Sruthi Suresh

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EDUCATION

University of California - Riverside **September 2023 - March 2025**
Master's, Computer Science *GPA: 3.71*

BNM Institute of Technology **August 2019 - May 2023**
Bachelor's, Computer Science *GPA: 8.78*

SKILLS

Skills: Java, Python, HTML/CSS, Git, Operations Research, MATLAB, AWS, C/C++, Blockchain, Data Structures & Algorithms, Flask, Figma, MongoDB, PHP, Web Development

PROFESSIONAL EXPERIENCE

Suvidha Foundation **Bengaluru, Karnataka, India**
Data Science Intern *March 2023 - April 2023*

- Enhanced website user experience and increased online donations by 15% by implementing real-time updates and optimizing site layout using Python, JavaScript, and data structures, collaborating with marketing and applying project management best practices.
- Expanded organizational reach by launching 10 new sub-organizations through Business Intelligence analysis and forecasting, driving greater alignment with the primary cause.
- Improved website functionality for donors by leading a project using Python and Spark to develop an ML model for multi-fact correction in abstractive text summarization, enhancing the backend and data pipeline.
- Elevated donor engagement and platform usability by conducting user surveys and implementing operating systems best practices to refine user interface and backend processes.

Honeywell International **Bengaluru, Karnataka, India**
Data Analyst Intern *February 2023 - March 2023*

- Improved client share value by 3% by analyzing large datasets using Python and PowerBI, leveraging data structures and forecasting techniques to deliver Business Intelligence reports for client companies.
- Streamlined team collaboration and code quality by utilizing Git for version control and project management, organizing tasks and code reviews for backend data analysis scripts in Python and JavaScript.
- Enhanced data reporting efficiency by developing and automating data processing workflows in Python and Java to optimize backend reporting, applying operating systems knowledge to manage data pipelines and secure access.
- Facilitated communication between technical and non-technical teams by acting as spokesperson for client companies, collaborating with product management to deliver updates and gather feedback during product launch phases.

Old Dominion University **Norfolk, VA, USA**
Research intern *September 2022 - October 2022*

- Improved authentication security for call center systems by designing and implementing secure backend workflows using Python, Java, and JavaScript, leveraging data structures and operating systems concepts.
- Enhanced team productivity and project outcomes by applying project management techniques to coordinate deliverables and schedules on aggression detection and call center performance projects, earning recognition as best research team.
- Contributed to machine learning-based forecasting models by developing and evaluating predictive models using Python and Spark for aggression detection and call center analytics, applying business intelligence principles to improve forecasting accuracy.
- Expanded technical knowledge and communication skills by presenting research on computer networking, human-computer interface, and AI in medical sciences, effectively communicating backend systems, data structures, and product launch considerations to academic audiences.

PROJECTS & OUTSIDE EXPERIENCE

Informed AI – Real-Time Weather & Air Quality Monitoring System **Riverside, CA, USA**
Master's project *May 2024 - March 2025*

- Accelerated API response times by 40% in a real-time weather and air quality monitoring system by engineering backend services with Python and FastAPI, leveraging Redis caching, and optimizing data structures.
- Enhanced cross-device usability and data visualization by designing and implementing a JavaScript-based ReactJS frontend, integrating dynamic AQI and weather data with Business Intelligence features.
- Increased system reliability and reduced crashes by 95% during production deployment by leading debugging, error handling, and optimization of backend processes using clean architecture principles and modular coding practices across operating systems.
- Enabled future AI-driven forecasting and extensibility by architecting PostgreSQL integration to manage user data and historical queries, supporting analytics and potential product launch improvements.
- *Link to project*

Image Compression using CUDA libraries **Riverside, CA, USA**
November 2023 - December 2023

- Achieved a 15:1 lossy and 4:1 lossless compression ratio by developing and optimizing a custom image compression algorithm with CUDA C/C++ and Python using advanced data structures.
- Enhanced image processing throughput by 5x by implementing parallel processing and optimized kernel functions, integrating operating systems concepts for backend scalability.
- Reduced computational overhead and improved latency by utilizing adaptive compression modes and dynamic switching between lossy and lossless strategies in backend systems.
- Improved project management and documentation quality by authoring detailed documentation and performance analysis for future product launch.

Aggression detection for Alzheimer patients **Norfolk, VA, USA**
September 2022 - October 2022

- Achieved 92% accuracy in aggression prediction for Alzheimer patients by engineering a state-of-the-art ML model using Python, advanced data structures, and algorithms for real-time patient monitoring.
- Reduced patient agitation response time by integrating an Amazon AWS backend for secure, real-time data storage and processing, applying operating systems and Business Intelligence concepts to improve care workflows.
- Enhanced proactive patient support by designing and launching a \'help\' feature, collaborating with a cross-functional team and applying project management skills to ensure a successful product launch and improve patient safety.
- Improved data processing efficiency by exploring integration with Spark and Snowflake for scalable analytics and forecasting, laying groundwork for advanced Business Intelligence solutions.