SHARAN MURLI

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EDUCATION

University of Southern California   MAY 2023 – DEC 2024
Master of Science in Computer Science, Los Angeles, CA
SIES Graduate School of Technology   AUG 2018 – JUNE 2022
Bachelor of Engineering in Computer Engineering, India

SKILLS

- **Programming Languages**: Python, Java, C/C++, C#, JavaScript
- **Frameworks:** Flask, TensorFlow, Keras, OpenCV, Matplotlib, Scikit-learn, Pandas, Custom Vision, HuggingFace
- **Cloud Platforms/Big Data:** AWS, GCP, Azure, Apache Pig, MapReduce, Hadoop
- **Web Technologies:** HTML5, CSS3, Bootstrap, Angular, Express.js, Node.js, React.js, SwiftUI, Unity Engine
- **Tools/Databases:** Tableau, GIT, JIRA, Postman, Docker, Amazon S3, SQL, MySQL, MongoDB, PostgreSQL, Firebase

EXPERIENCE

Software and IT Analyst, Marshall Technology Support, Los Angeles, CA   OCT 2023 – DEC 2024
- Streamlined support operations by diagnosing and resolving **software** and **hardware** issues, reducing **system downtime** by **30%**
- Optimized IT infrastructure by implementing automated workflows, improving efficiency and reducing **manual intervention** by **25%**
- Provided **end-to-end support** for applications, enhancing productivity and ensuring system availability through proactive monitoring

Software Engineering Intern, WorkUp, Marina Del Rey, CA   MAY 2024 – AUG 2024
- Conceived and developed a node-react backend service, supporting user authentication and enabling seamless application autofill
- Boosted resume parsing accuracy by **20%** through advanced NLP techniques and optimized keyword matching for precise data extraction
- Improved data retrieval time by **30%** through streamlining backend workflows, optimizing database queries and leveraging AWS S3

Software Developer, Gozoop Online Private Limited, India   JULY 2022 – NOV 2022
- Engineered responsive web systems and backend functionalities, incorporating **GSAP animations** to create dynamic user interfaces
- Increased **click-through rates** by 25% through A/B testing and optimized web system performance using **Server-Side Caching**
- Elevated user engagement by 18% through live updates on the corporate website, reducing load times and refining CTAs for clarity

PROJECTS

Transfer Learning for Cross-Language Program Repair with RepairCLlama
- Architected a transfer learning pipeline to adapt **RepairCLlama** for C debugging tasks, utilizing Java debugging knowledge to achieve a **CodeBLEU** score increase from **0.81 to 0.91** through additional fine-tuning
- Refined code debugging through **LoRA-based fine-tuning**, achieving a **45%** reduction in training loss and improved error correction
- Benchmarked RepairCLlama against **CodeLlama,** achieving a **40% improvement** in **Plausible Match** scores through fine-tuning on C-specific datasets and enhancing error localization for multi-line code errors in C

eBay Product Search Platform
- Crafted a Web and IOS product search platform, incorporating a **React.js Node/Express** proxy server to access the **eBay API**
- Integrated REST APIs with **MongoDB**, reducing query response time by **40%** and ensuring scalability through GCP deployment
- Implemented **Google Custom Search API** for real-time product image retrieval, enhancing search accuracy by 30% through refined query algorithms and dynamic image filtering

Opinion Segregation using Pig and MapReduce
- Attained **92% precision** in sentiment segregation using **MapReduce** for **distributed processing**, improving data handling speed
- Streamlined development by utilizing **Apache Pig's abstraction**, reducing code complexity by **90%** and optimizing runtime performance
- Delivered actionable visualizations by utilizing **Tableau** to present sentiment trends derived from a custom sentiment dictionary rating words from -5 to +5

LEADERSHIP AND ACHIEVEMENTS

- Earned **AWS Certified Cloud Practitioner Certification**, showcasing foundational AWS cloud knowledge (**Credential Link**)
- **Salesforce Certified AI Associate Certification** that demonstrates proficiency in AI and Data for CRM (**Credential Verification**)
- **Teaching Assistant (Course Producer):** CSCI 572: Information Retrieval and Web Search Engines under **Professor Sathyanaraya Raghavachary** at University of Southern California **(USC)**. Assisted in grading and managing course operations for a program centered on **real-world industry** use cases in **data retrieval** and **web development** including SEO, machine learning and big data analytics
- **Viterbi Summer Smasher** Program Team Lead (Entrepreneurial training in a tech startup environment backed by Stanford and Google)
- Published the research paper titled *"Agricultural Supply System with Permissioned Networks through Hyperledger Framework"*
- Led event planning, management, and logistics as **Chairperson** and **Secretary** of the **Computer Society of India (CSI)**, conducting over 15 dynamic national events and interactive workshops across India showcasing cutting-edge technologies