Shreyas Raghuraman

shreyasraghuraman@gmail.com 6282832519 San Francisco linkedin.com/in/shreyas-rscp

Education

Master of Science in Computer Science | GPA: 3.95, *San Francisco State University* 01/2024 – present | San Francisco, United States

Skills

Languages & Frameworks: C++,Python, JavaScript, Node.js, React.js, Next.js, FastAPI, Flask, HTML/CSS, SQL.

Data Engineering & Databases: MongoDB, PostgreSQL (including vector embedding support), Microsoft SQL Server, Azure Data Factory, ChromaDB

Cloud Platforms & Deployment: AWS, Azure, Docker, Kubernetes, Jetson Edge Computing

Machine Learning & AI: YOLOv8, Vector Embeddings, Cosine Similarity, Prompt Engineering, Fine-Tuning Models, NLP, Computer Vision

Business Intelligence & Analytics: Power BI, Power Automate, Power Apps, Data Visualization, Stored Procedures, ETL Pipelines

Software Development & Collaboration: Git, Agile methodologies, UI/UX Design, Responsive Development, End-User Testing

Professional Strengths: Problem-Solving, Optimization, Data-driven Decision Making, Effective Communication, Time Management, Leadership

Certifications: PL 900 - Microsoft, Architecting with Google Compute Engine Specialization - Google

Professional Experience

Software Engineer, *Tata Consultancy Services* 10/2021 – 01/2024 | Chennai, India

Client: Sodexo
• Developed a global Profit & Loss tracking app used by 5,000+ employees by leveraging Power Apps and SQL Server, enabling proactive management of loss-making contracts and improving operational efficiency by 60%.
• Automated daily data analysis and integration by building end-to-end workflows using Stored Procedures, Power Automate, and Power BI, reducing manual effort by 80% and enabling real-time decision-making.
• Improved data export efficiency by 70% by integrating Azure Data Factory with Power Automate, optimizing ETL pipelines and decreasing processing time across multiple departments.

Client: LAM Research
• Migrated and optimized a legacy enterprise app used by 2,000+ users by redesigning architecture with SQL Server, Power Platform and Sharepoint, resulting in 80% reduction in operational costs and a 60% boost in app performance.
• Enhanced backend responsiveness by optimizing complex CRUD operations in SQL, reducing average query time by 45% and improving user experience across critical workflows.
• Delivered UI/UX improvements by implementing responsive design and collecting stakeholder feedback, achieving 100% device compatibility and increasing user satisfaction by 35%.

Client: KLA Tencor
• Administered and redesigned SharePoint sites serving 5,000+ users, improving access control and interface usability, leading to a 40% increase in platform adoption across global teams.
• Resolved 150+ technical issues including 11 high-priority incidents in one day by applying efficient troubleshooting and user education, reducing support ticket volume by 30%.
• Enhanced data security by implementing Azure Security Group-based role access, ensuring compliance with corporate security standards and protecting sensitive enterprise data.

Research Assistant-Data Engineer, *San Francisco State University* 08/2024 – present | San Francisco, CA
• Collaborating on a personalized academic planning platform for 450,000+ students across California by developing intelligent degree pathways, resulting in improved clarity and efficiency in student academic journeys.
• Increased recommendation accuracy by 30% by implementing vector embedding models on C-ID and PPM datasets, enabling AI-driven course suggestions tailored to student prerequisites and transfer pathways.
• Streamlined academic data transformation by reverse engineering legacy PPM systems and converting unstructured data dumps into structured JSON, reducing processing time for downstream algorithms by 50%.
• Enhanced system responsiveness and scalability by migrating large datasets from MongoDB to PostgreSQL, utilizing native vector search capabilities for faster and more accurate academic planning queries.

Projects

Edge AI Project with NVIDIA Jetson: 01/2025 – present
• Developed and optimized a YOLOv8 Small model to classify brain tumors from 7,000+ MRI images across four categories, improving diagnostic reliability and enabling edge deployment on NVIDIA Jetson devices.
• Enhanced model generalization and reduced overfitting by transitioning from YOLOv8 Nano to Small, achieving a significant accuracy improvement in distinguishing tumor types.
• Improved tumor classification performance through extensive hyperparameter tuning, advanced preprocessing (resizing, normalization, augmentation), and switching optimizers from AdamW to SGD.

Football Chatbot: 09/2024 – 12/2024
• Developed and deployed a conversational AI chatbot for NFL fans, delivering real-time match updates, player stats, and fantasy football advice, enhancing user engagement during live games.
• Built a scalable full-stack application using React.js and Node.js with a Python-based AI backend, hosted on Dockerized AWS EC2 instances, ensuring 99.9% uptime and smooth deployment cycles.
• Increased data retrieval accuracy by 40% by implementing semantic search using vector embeddings in ChromaDB, enabling users to get relevant and context-aware football insights instantly.
• Integrated LLMs (Llama 3 and GPT-4) with tailored prompt engineering to improve conversational quality and depth, resulting in a more natural and informative user experience.