AKSHATHA SRIKANTHA

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EDUCATION

University of California, Irvine, California **GPA 3.9** *Sep 2024–Present*
Master of Computer Science

MVJ College of Engineering, Bangalore **GPA 3.82** *Aug 2017 – June 2021*
Bachelor of Engineering

EXPERIENCE

IBM- Data Engineer - Big Data Domain *Oct 2021 – June 2024*

- Optimized actuarial data processing pipelines using **Python** and **PySpark**, reducing system runtime by **80%**.
- Developed and maintained **scalable actuarial data storage solutions** with **MongoDB** and **Java**, ensuring high availability for risk modeling. Designed and implemented **RESTful APIs** to serve actuarial insights, enabling seamless querying for actuaries and data scientists.
- Collaborated with **cross-functional teams** to aggregate and process large actuarial datasets for **financial forecasting**.
- Leveraged **Apache Airflow, Delta Lake, and Spring Boot** to enhance data workflow automation and system scalability.

UC Irvine - Grader - EECS 180B: Principles of Electrical Engineering *Apr 2025 – Present*

- Graded advanced assignments on circuit analysis, phasors, and EM waves with rubric-based accuracy.
- Worked with the instructor and TA to maintain standards and address student queries promptly.

RESEARCH EXPERIENCE

Research Assistant – Anatomy and Neurobiology Lab, UC Irvine *Apr 2025 – Present*

Working on experiments under Dr. Kei Igarashi, exploring how entorhinal-hippocampal circuits are affected in Alzheimer's disease, using mouse models. I assist with in vivo calcium imaging, behavioral testing, and process neural signals using MATLAB, Python, and NeuraLynx to study memory-related activity patterns.

TECHNICAL SKILLS

Programming Languages & Databases: C, C++, Python, Java, HTML, CSS, JavaScript, R, SQL, MongoDB
Tools: Git, Colab, AWS, CI/CD, REST API, Jupyter
ML Frameworks: PyTorch, Sklearn, Numpy, Pandas, Keras, TensorFlow, Gemini API
Certifications: Cloud Practitioner, Azure fundamentals (AZ-900)

PROJECTS

Title: "Pic2Plate - AI Powered Recipe Recommendation System" *Jan 2025 – Present*

- Built a cross-platform mobile app using **Flutter** that detects ingredients from user-uploaded fridge images and suggests recipes in real time.
- Integrated **Amazon Rekognition API** for ingredient identification and **RapidAPI** for dynamic recipe retrieval based on detected inputs.
- Implemented backend logic for data preprocessing, API handling, and optimized UI responsiveness to deliver a seamless user experience.
- Collaborated on system design, image classification logic, and scalable architecture for future integration of personalized meal planning modules.

Title: "Sales Win-Loss Classification using Machine Learning Models" *Jan 2024 – Mar 2025*

- Built a predictive model to classify B2B sales outcomes (win/loss) using features such as client revenue, region, and sales stage duration.
- Preprocessed data with **LabelEncoder** and **StandardScaler**; visualized patterns using **Seaborn** (count and violin plots).
- Trained and evaluated **Logistic Regression**, **KNN**, **Naive Bayes**, and **Random Forest models**; performed hyperparameter tuning.
- Achieved **84.68% accuracy** with a soft voting ensemble classifier, outperforming individual models through strategic model combination.

Title: "Dynamic Code Processing with JIT Compilation" *Sept 2024 – Dec 2024*

- Built a C-based system that turns input into executable code on the fly. The project includes a lexer to break down input, a parser to build an abstract syntax tree (AST), and a just-in-time (JIT) compiler to generate machine code dynamically.
- Focused on optimizing performance with efficient memory handling and streamlined the build process using Makefiles.

Title: "Emotional stress recognition system using EEG and physio psychological signals" *Jan 2021*

- The purpose of this project is to recognize the **emotional stress** a person is experiencing, by analyzing the **data** collected through the **EEG** module. The signals are filtered out for excess noise and only required data is captured for analysis using Support Vector Machine algorithm and Genetic Algorithm.
- As a first author alongside 2 of my professors, this paper was presented in a **conference** at the 2021 International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICA ECA) and published in **IEEE**.
- **IEEE Conference Paper**