Suchit Bhayani

suchit.bhayani@gmail.com | (925) 875-8737 | linkedin.com/in/suchit-bhayani | suchitbhayani.github.io

EDUCATION

University of California San Diego San Diego, CA
Bachelor of Science in Data Science, Minor in Mathematics Sep. 2023 - June 2027

- GPA: 3.9/4.0
- Relevant Coursework: Deep Learning, Computer Vision, Data Mining, Data Visualization, Probability, Statistics

EXPERIENCE

UC San Diego Health Oct. 2025 - Present
Data Science Intern

- Build regression models to identify key clinical features predicting patient risk, enabling more interpretable insights
- Develop NLP pipelines to predict patient risk from unstructured clinical notes using TF-IDF and transformer embeddings
- Conduct EDA and statistical analysis on patient risk-factor data across nutrition, function, and culture domains
- Utilize AWS WorkSpaces to run cloud-based model training, data analysis, and large-scale data processing workflows

Nike June 2025 - Aug. 2025
Data and Machine Learning Engineer Intern

- Built an MLflow pipeline to compute missing metrics for existing models and notify teams if thresholds are not met
- Engineered CI/CD workflow in Databricks to check required metrics before model promotion, flagging compliance issues
- Designed and implemented model card functionality to improve transparency and governance of deployed models
- Scaled feature engineering in a recommender system using PySpark, speeding up product recommendations by **20%**

UC San Diego Jan. 2025 - Present
Teaching Assistant

- Automated grade calculations and imports using pandas and canvas API, reducing manual workload
- Facilitated engaging discussion sections, wrote testing scripts, and created exams to enhance learning outcomes
- Resolved **500**+ tickets regarding data structures and algorithms during office hours and on the class forum
- Received a **100%** recommendation rate across multiple offerings of various courses, totaling **1000**+ students

Li Lab Oct. 2024 - June 2025
Machine Learning Researcher

- Engineered and cleaned datasets to build ML models analyzing key drivers of hematopoietic stem cell self-renewal
- Conducted regression and correlation analyses using scikit-learn, identifying **31** genes for further biological testing
- Performed time series differential gene expression analysis in R, identifying biologically significant gene clusters

Digital Prudentia June 2024 - Sep. 2024
Data Science and Engineer Intern

- Utilized retrieval-augmented generation (RAG) with Azure SDK to develop image-based skin cancer detection model
- Linked documents with text and image data to the model using Azure AI Search, enabling contextual insights
- Used prompt engineering to reduce inference costs by **30%**, optimized model with hyperparameter tuning

PROJECTS

Music Recommender System
Full-Stack Development, Software Engineering, Agile Development, REST API, Containerization, MERN Stack

- Trained a hybrid LightFM music recommender system, deployed via FastAPI, and containerized using Docker
- Built full-stack web app using React, Express/Node.js, and MongoDB to serve and display music recommendations
- Implemented client-side features for real-time tracking and visualization of top tracks and listening trends

Personalized AI Health Insights
Big Data, Scalable Systems, Natural Language Processing (NLP), Healthcare AI, Data Engineering

- Developed ETL pipeline in dask to efficiently process and analyze millions of Apple Watch health data points
- Engineered health insight generation pipelines with fine-tuned Hugging Face LLMs, enabling health-specific inferences
- Built an interactive dashboard using plotly to visualize trends, insights, and actionable recommendations

SKILLS

- **Languages:** Python, Java, JavaScript, SQL (MySQL, PostgreSQL, NoSQL), R, HTML/CSS
- **Libraries:** pandas, PySpark, dask, scikit-learn, NumPy, scipy, plotly, seaborn, Matplotlib, BeautifulSoup
- **Frameworks:** PyTorch, TensorFlow, Keras, React, Express, Node.js, FastAPI
- **Tools:** AWS (S3, EC2), Azure (DevOps), Docker, Git, GitHub, MLflow, Jupyter, Linux/Unix
- **Interests:** Gym, nature, music, basketball, football