

Bennett Bishop

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EDUCATION

University of California, Santa Barbara

B.S., Statistics and Data Science; B.A., Philosophy; Certificate, Technology Management

Goleta, California

June 2025

SKILLS & COMPETENCIES

Languages/Libraries: Python (PyTorch, Tensorflow, Keras, Scikit-learn, Pandas, Numpy), Rust, R, SQL, Javascript/Typescript, React

Competencies: Natural Language Processing (NLP), Retrieval-Augmented Generation (RAG), Machine Learning Algorithms (e.g., SVMs, RFS), Deep Learning Architecture (i.e., MLPs, CNNs, LLMs)

PROJECTS

Internal Employee Request Text Classifier

Dec 2024 - Jan 2025

Tensorflow and Keras; Finetuning DistilBERT

- Developed and fine-tuned a text classification model using TensorFlow and Keras to categorize internal employee requests into departments such as HR, IT, Finance, Facilities Management, and Marketing.
- Reduced training time by 18% and reduced trainable parameters from 67 million to 1 million through Low-Rank Adaptation (LoRA) fine-tuning, maintaining 99% accuracy with minimal drop in Precision, Recall, and F1.

UFC Machine Learning Project

Apr 2024 - Jun 2024

Scikit-Learn and R; Various ML Algorithms

- Cleaned a dataset containing career statistics for UFC fighters, developed models including Logistic Regression, Linear Discriminant Analysis, Decision Tree, Random Forest, and K-Nearest Neighbor using 10-fold cross-validation, selecting the best-performing model with an ROC-AUC of ~80% to predict fight outcomes.
- Built interactive Python app using Scikit-Learn to predict the winner between two selected fighters, leveraging extensive OpenAI prompt engineering to deliver curated, data-driven explanations.

Optimizing SD Public Transit

Oct 2022 – May 2023

NumPy and GeoPandas; 1st Place Winner at Data Science UCSB Showcase

- Led a team in a data science initiative leveraging simulated annealing, NumPy, GeoPandas, and GIS data to optimize bus stop departures and routes, prioritizing access for lower-income, higher-population neighborhoods in San Diego.
- Our project was awarded First Place at the 2023 Spring Project Showcase, outperforming 26 competing projects and highlighting our project's tangible potential to help underserved communities.

WORK & LEADERSHIP EXPERIENCE

Data Science UCSB

May 2024 – Present

Director of Events

- Lead the strategic planning and execution of over 50 events, engaging a community of 500+ club members, including the ongoing Big/Little program.
- Organize outreach to companies and coordinate partnerships for our career fair, enhancing networking opportunities for members.

Brainsink

Jun 2023 – Present

Lead Software Engineer

- Engineered 17+ interactive pages, 20+ complex components, and 25+ mutations and queries using TypeScript, React, GraphQL, and PostgreSQL, delivering a fully functional project management website.
- Designed and implemented dynamic Retrieval-Augmented Generation (RAG) chatbots utilizing OpenAI APIs for text embedding, vectorization, retrieval, and generation in conjunction with vector stores for efficient semantic search.

OTHER

Work/Leadership: Research Assistant at the UCSB CCBER (Jan 2025 - Present), Data Analyst at UCSB Alumni Association (Aug 2024 - Present), Software Engineering Intern at Amotions, Inc. (Dec 2022 – Sep 2023), UCSB D1A Rugby (Sep 2021 - June 2023), Eagle Scout at BSA (Dec 2019)

Projects: Built a Multilayer Perceptron from scratch using Rust

Interests: Rugby, Weightlifting, UFC, Jazz Trombone, Symphony Orchestra, Piano, Riddles, NYT Games