# Jack Seymour

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# **Summary**

Computer Science student with hands-on experience in software development, data analysis, and machine learning. Passionate about applying technical knowledge to solve real-world problems and tell meaningful stories through data. Skilled in Python, SQL, and statistical modeling, with a strong foundation in communication and cross-functional collaboration. Seeking roles that merge technology with creativity—particularly in industries where innovation and storytelling intersect.

#### **Education**

# **Loyola Marymount University**

Aug 2021 - May 2025

Bachelor of Science, Computer Science, minor in Business Administration

Los Angeles, CA

- **GPA:** 3.7 CS Department & 3.6 Overall
- Coursework: Machine Learning, Probability and Mathematical Statistics, Algorithms and Analysis, Artificial Intelligence, Languages and Automata, Data Structures and Applications, Web Application Development, Logic and Computer Design, Operating Systems, International Business, Financial & Managerial Accounting

# **Projects**

## **Sentiment Analysis with Supervised Machine Learning Model**

- Gathered and preprocessed 330 movie review tweets to create a labeled dataset for training.
- Tested sentiment classification with 70 held-out tweets, analyzing accuracy and misclassifications.
- Applied Scikit-learn Support Vector Machine (SVM) with hyperparameter tuning to balance class distribution.
- Analyzed sentiment trends and top keywords to uncover audience perceptions, offering insights for improving product appeal and enhancing customer experience.

#### **Gaussian Process for Fraud Detection**

- Applied Gaussian Processes to a credit card fraud dataset, achieving 97% recall.
- Independently studied the topic and presented it to a Machine Learning class modeling the uncertainty and each predicted class probability with visualization.

## AI Outfit Generator

- Led development of a Swift-based AI outfit generator using an LLM and Firebase.
- Built an interface for users to upload clothing, generate outfits from their digital closet, and visualize selections with digitally edited images, enabling swipe-based outfit curation.

# **Phoneme Classification for Speech Recognition**

- · Built validation from scratch by implementing k-fold cross-validation without external libraries, ensuring robust model evaluation for phoneme classification in Automatic Speech Recognition.
- Built and compared Perceptron and Logistic Regression models on 61-dimensional audio features.
- Applied data preprocessing techniques, including feature standardization, to enhance classifier performance and analyzed model accuracy across 10 trials of 10-fold cross-validation.
- Engineered a custom cross-validation pipeline, optimizing regularization techniques (L2) and hyperparameters to improve predictive accuracy and generalization.

May 2023 **BEST Bootcamp** 

- Collaborated with Business and Engineering students to develop data-driven solutions for consumer products.
- Contributed to an Entrepreneurship project, leveraging data analytics to create an AI-powered skincare curation tool that customized product recommendations based on customer skin tone data.

# **Experience**

Kotini

Software Development Internship

Mar 2024 - May 2024

London, England

- Contributed to an innovative startup transforming the UK home-buying process by enhancing the existing codebase with a new Python library with additional functionality to increase efficiency.
- Developed and executed Cypress tests for an upcoming software release, documenting results and debugging errors to support agile development and optimize performance.

# **Skills**

- Programming & Development: Python, SQL, R, React.js, Java, Swift
- Data Science & Analytics: Scikit-learn, PyTorch, Statistical Methods, Data Analysis, Databases
- Cloud & Tools: Google Cloud Platform, AWS, Microsoft Office
- Communication & Presentation: Effective Presentation, Public Speaking, Clear Communication of Technical Concepts