

Jahn Jamison Tibayan

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EDUCATION

California State University, Fullerton

Bachelor of Arts in Computer Science

Fullerton, CA

Expected Grad: Dec. 2025

EXPERIENCE

Software Engineering Fellow

Headstarter AI

July 2024 – Sept 2024

San Francisco, CA

- Produced multiple full-stack web applications under a wide breadth of technologies, collaborating in multiple teams under tight deadlines in a 7-week program
- Achieved 2nd place out of 550 participants in the Headstarter Hackathon by developing a budgeting web app using React, TailwindCSS, and Supabase, leading to 300+ user signups and 3K+ site visits within 36 hours
- Developed an AI-powered study platform utilizing GPT-4o-mini, Next.js (App Router), OpenAI API, Clerk Auth, Firebase Firestore, and Material UI to help students with generated Flashcards

Machine Learning Research

California State University, Fullerton

August 2024 – December 2024

Fullerton, CA

- Applied multiple machine learning models under guidance of Dr.Kanika Sood (Logistic Regression, Decision Tree, Random Forest, and Gradient Boost) to predict youth at risk for tobacco use and identify the most influential factors contributing to usage
- Preprocessed the National Youth Tobacco Survey data and handled the high dimensionality and class imbalance by utilizing Principal Component Analysis (PCA), SMOTE, and Random Forest importance scores for feature selection
- Evaluated models with cross-validation and relevant metrics such as precision, recall, F1-score and AUC-ROC, finding Logistic Regression to be the most balanced model achieving a 93% recall rate for identifying at-risk individuals and an F1-score of 76%

PROJECTS

Product Review Aggregator | *React, TypeScript, Express, Firebase, Clerk, Puppeteer*

July 2024

- Developed a full-stack web application to analyze product quality based on aggregated customer reviews sentiment when given a product URL or search term
- Integrated the YouTube Data API to fetch the most relevant videos and comments of a given product to provide context for the aggregated sentiment and generated product score
- Leveraged Puppeteer for web-scraping and Gemini API for AI-driven insights from customer reviews and videos, ensuring content relevance.

AI Study Platform | *NextJS, JavaScript, Firebase Firestore, MaterialUI, Clerk Auth, OpenAI API*

Sept 2024

- Created a flashcard review web application utilizing OpenAI's GPT-4 model, automating text-to-flashcard generation to streamline student learning and engagement with material
- Engineered a secure web API using Next.js's App Router in JavaScript, integrating Clerk Auth for authentication and Clerk middleware for route protection and user access control
- Implemented a responsive frontend by customizing Material-UI components and designing a custom theme to ensure an optimal user experience

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript, Express.js, HTML/CSS, SQL (MySQL, SQLite, Postgres)

Frameworks: Next.js, React, Node.js, TailwindCSS, Material-UI

Developer Tools: Git, Supabase, Firebase, MongoDB, Jupyter Notebooks

Libraries: pandas, NumPy, Matplotlib, Plotly