NICK AMBROSE

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EDUCATION

Cal Poly, San Luis Obispo

B.S., Computer Science

GPA: 3.75

Dean's List

Graduating June 2024

SKILLS

Git

Object Oriented Design

REST API

Agile Development

React

SwiftUI

Prompt Engineering

Docker

UML modeling

CI (GitHub Actions)

Multi-threaded Programming

LANGUAGES

Python

C

Java

Swift

JavaScript

RISC-V Assembly

PostgreSQL

COMMUNITY SERVICE

Food Packager
Feed My Starving Children

WORK EXPERIENCE & LEADERSHIP

Software Engineer | Better Texter Inc. | March 2023 - August 2023
- Collaborated with a cross-functional team to deploy BetterTexter, an iOS app that allows users to rewrite text messages in multiple different tones and translate texts into various languages within iMessage, achieving 100+ downloads since launch.
- Collaborated closely with a UI/UX designer, utilizing UIKit & SwiftUI for designing intuitive front-end elements and creating a user-friendly onboarding flow, ensuring a seamless and engaging user interface.
- Utilized the Open AI Chat API to drive the functionality of key features such as smart voice texting and text message rewriting.
- Implemented Google's Cloud Firestore Database for efficient storage and retrieval of user feedback on text rewrites, facilitating continual improvement of the app.
- Demonstrated expertise in prompt engineering, optimizing the capabilities of the LLM.

Computer Science Tutor | Cal Poly CS & SWE Dept. | Feb. 2022 - Present
- Facilitate understanding of key Computer Science principles, including data structures, algorithms, and OOP, tailoring explanations to individual student needs.
- Mentor hundreds of students in developing bug-free, understandable, and efficient code, with a focus on practical application and problem-solving techniques, leading to a noticeable improvement in their academic performance and coding skills.

Communications Chair | Cal Poly Dance Marathon | 2021
- Played an integral role in managing emails and planning Dance Marathon, an event that culminated in $13,596 raised for Cottage Children's Medical Center.

PROJECTS

Workout API
- Engineered a RESTful API using the FastAPI framework with a Postgres database hosted by Supabase. The API focused on user management, and workout-related features like recommendations, logs, and goals. Efficiently managed database operations using SQLAlchemy and schema changes with Alembic.
- Oversaw project lifecycle from concept to Vercel deployment, including database design (ER diagram) and defining technical specifications for endpoints.

"Screen Squad" Movie Website
- Screen Squad is an engaging website enabling users to explore upcoming movies, share reviews, and curate personalized watchlists.
- Acquired full-stack development skills, utilizing React for responsive front-end design, Express.js for efficient backend handling, and MongoDB for database management.

Threading Library
- Created a library that exposes an API for C programs to create and run threads.
- Implemented a round-robin scheduling algorithm to manage thread execution.

Divorce Predictor Machine Learning Model
- Developed custom K-means clustering and K-Nearest Neighbors algorithms to estimate the likelihood of divorce in couples. Compared the performance and accuracy of these custom models against Scikit-learn implementations.