ALAN NGUYEN

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EDUCATION

University of California, Los Angeles Expected Jun 2024
B.S. in Computational and Systems Biology – Data Sciences **GPA**: 3.879 (Dean's Honors List)

- **Relevant Coursework**: Software Construction, Data Structures & Algorithms, Discrete Mathematics, Linear Algebra, Differential Equations, Mathematical and Computational Biological Modeling
- **Activities**: LA Blueprint, 180 Degrees Consulting, Clinical and Translational Science Institute Research Associates Program, Bloom Hackschool, CPR/First Aid Instructor

WORK EXPERIENCE

UCLA Asian American Studies Center, *Frontend Developer* Jul 2023 – Present

- Engineer interactive modals, pages, carousels and pop-ups for a textbook application using **JavaScript** and **HTML**, pioneering Asian American Studies in Los Angeles public schools
- Write **jQuery** based **AJAX** requests to retrieve written content from a remote server for display
- Implement global styles in **SCSS**, defining mixins for reusability of repeated custom components

TransCanWork, *Contract Lead Developer* Oct 2022 – Present

- Developed full-stack **React** web application for nonprofit organization TransCanWork, migrating data from a Google Spreadsheet that logs 2500+ jobseekers into a user-friendly, centralized application
- Made **API calls** to retrieve, display and update each user's demographic and employment milestone information within home pages connected to the **Firebase** relational database
- Implemented search and filter with toggleable checkboxes, returning relevant jobseeker objects based on search query and checked skills/experiences specified by user
- Developed a dynamic assessment component with integrated **Material UI** and **Bootstrap** components recording a jobseeker's skills, interests and previous experiences
- Lead team of six developers in translating **Figma** prototypes into **JavaScript**, **HTML** and **CSS** code

Junction of Statistics and Biology, *Machine Learning Research Assistant* Jan 2023 – Jun 2023

- Engineered **Python** program investigating the performance of a **support vector machine** classifying cells based off single-cell RNA sequencing data with varying class definitions
- Utilized **NumPy**, **SciPy**, **pandas**, **Matplotlib** and **scikit-learn** libraries to develop and test 26 individualized simulated datasets, each with 25,000+ cell entries from the Broad Institute
- Analyzed **macro F1 scores** to assess support vector machine performance with varying class definitions

PROJECTS

DopaMind Study Platform

- Utilized **Cohere API's** language processing capabilities to generate specialized anagram word prompts for students with ADHD, exercising their visual and executive functioning
- Embedded **AssemblyAI** to implement voice transcription feature that records the student's verbal expression of their ideas and extends on them using an AI chatbot
- Used **React hooks** to accurately manage timer state and intervals of a Pomodoro timer component, complete with radio buttons to switch back and forth between break and work time

SEASHarmony Matching Program

- Utilized **scikit-learn's** K-means algorithm to pair 1500+ incoming engineering students with upperclassman mentors, creating clusters based on qualitative survey answers
- Wrote recursive function in **Python** that defined and reorganized clusters based on remaining collection of students and mentors upon each call

RELEVANT SKILLS

Technical Skills: Python, JavaScript, HTML/CSS, C++, Java, R
Tools: React, Git, Figma, Firebase, Node.js, Linux