# **BRANDON KAO**

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#### **EDUCATION**

## University of California, San Diego

Major: B.S. in Cognitive Science, with a Specialization in Machine Learning and Neural Computation

Minor: Computer Science

Major GPA: 3.78

### RELATED COURSEWORK

• CSE 100: Advanced Data Structures

• CSE 110: Software Engineering

• COGS 108: Data Science in Practice

• COGS 118A: Supervised Machine Learning Algorithms

# **PROJECTS**

## I'm Something of a Painter Myself

November 2022

Expected Graduation: 2024

Python: Neural Networks

- Getting Started Code Competition from Kaggle using GANs
- Built a generator model with Keras using a convolutional neural network
- Modified and tuned the Keras MobileNet model to use as a discriminator

## **Solar System Model**

September 2022

Python: Data Visualization

- Animated model of the solar system using Matplotlib
- Reads orbital data from a tsv file and adjusts the visualization accordingly
- Includes multiple synchronous subplots from different perspectives including a geocentric model

Pollution Database July 2022

C ARM: Dynamic Programming

- · Reads csv files and stores data with minimum space complexity
- Implemented commands to modify the data with minimum time complexity

#### SKILLS

- Languages: Python, Java, C++, C, ARM Assembly, HTML, JavaScript, CSS
- Frameworks and Libraries: Scikit-learn, TensorFlow, Keras, NLTK, Matplotlib, Pandas, Selenium

## RESEARCH

## **Cognitive Development Lab**

January 2023 - Present

- Building and maintaining the online experiment platform and avatar using JavaScript and OpenSesame in collaboration with the lab
- Process, analyze, and visualize data gathered from the experiment
- · Helped building a reinforcement learning model used to better understand how social decisions are made