Bradley Hsu

13667 Saratoga Vista Avenue, Saratoga CA 95070

☐ 1(669) 225-8042 | ✉ b.hsu@wustl.edu | 🏠 www.bradleyhsu.com | 🖵 BradleyHsu | 🔗 bradley-hsu

Education

Washington University in St. Louis   *St Louis, MO*

B.S. IN COMPUTER SCIENCE AND MATH (PROJECTED)

- GPA: 3.92. Dean's List.
- Relevant Coursework: Data Structures and Algorithms, Data Science, Intro to AI, Management, Linear Algebra, Vector Calculus, Systems Software, Human-in-the-loop Computation

Saratoga High School - National Merit Finalist. Very High Honors.

Projects

Eco2Go Tracker – Winner at Hacktech 2021

REACT, JAVASCRIPT, GOOGLE CLOUD PRODUCTS

- Selected as winning hack at Caltech's Hacktech 2021; Implemented tracker for university Eco2Go recycling program
- Built facial recognition component with React, tensorflow.js wrapper, and Firebase Cloud Storage integration
- Built dynamically updating React web app with Google Cloud Firestore integration

WashU Course Chat Linker

REACT, NODE.JS, AMAZON WEB SERVICES, EXPRESS.JS, MONGODB, DOCKER

- Co-built website for students to find and upload links to class groupchats. Used by 300+ people/more than 1/5th of my WashU class
- Deployed app on AWS with Docker; built Node.js backend for MongoDB database; built Express.js endpoints; designed React frontend

Domain General Attention Classifier

PYTHON, NUMPY, PANDAS, KERAS/TENSORFLOW

- As Software Lead for WashU Neurotech, built detector for human attention based on EEG brainwave data.
- Wrote signal processing and data pipeline scripts in Python, NumPy, and Pandas; Implemented various ML algorithms in Keras/Tensorflow.

Backpropagation Visualizer

REACT, JAVASCRIPT, CYTOSCAPE.JS

- Implemented backpropagation algorithm visualizer in React with graph visualization library cytoscape.js.
- Support for adding computation nodes to create arbitrary computation graph.
- Displays animation of forward and backwards pass through arbitary user created graph.

BlockIt APK

KOTLIN, MOZILLA-MOBILE/FENIX

- To improve personal productivity, forked Mozilla's fenix Android browser to generate APK hardcoded to block user specified websites.

Activities/Leadership

WashU Neurotech   *August 2020 – Current*

SOFTWARE LEAD

- Responsible for meeting organization and planning out development timelines; Led development of machine learning models.

Saratoga High School Science Olympiad   *2016-2020*

FOUNDER, PRESIDENT

- Led team of 30 people; coordinated and led members in 23 different events; founded educational summer camp to raise $5000 budget.

Work Experience

Washington University in St. Louis   *August 2021 - Current*

TEACHING ASSISTANT FOR CSE 217   *St. Louis, MO*

- Teaching Assistant under Professor Marion Neumann for Intro to Data Science class.
- Leading 10 person lab groups through Python-based Data Science labs, hosting office hours and assisting with grading. w

Private Tutor and Afficient Academy Tutor   *July 2019 - Current*

- Developed personalized curriculum; tutored students in math, science, computer science, and history classes.
- Part time paid position in Afficient Academy tutoring within the math and English supplementary program.

Skills

Languages	Java, Python, HTML/CSS, JavaScript, TypeScript, C++, C#, Matlab, Kotlin
Libraries/Frameworks	NumPy, Pandas, Sklearn, Keras/Tensorflow, Pytorch, React, Node.js, Express.js
Tools	MongoDB, Google Cloud Platform, AWS, Docker