

# Adam Ash

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## Education

**University of California Berkeley** - Cumulative GPA: 3.72, Major GPA: 3.86

**Berkeley, CA**

- BS, Electrical Engineering & Computer Science, College of Engineering
- Relevant Coursework: Databases, Operating Systems, Algorithms, Data Structures, Computer Architecture, Data Science, Discrete Mathematics, Probability Theory, Artificial Intelligence, Machine Learning, Neural Networks, Convex Optimization

Graduated May 2020

## Professional and Research Experience

### Sports Betting Innovative Analytics

**Remote**

Contract Software Engineer - Artificial Intelligence

January 2021 – May 2021

- Designed and built neural network models to predict at-bat outcomes to be used in Markov chain based baseball game predictions
- Created TensorBoard visualization dashboard for above neural networks to bolster understanding of sensitivities and outliers
- Queried noSQL databases to extract existing data and create transformation pipelines adding new predictive features for games

### UC Berkeley Multimedia Research Group

**Berkeley, CA**

Undergraduate Researcher – MediaEval Project

November 2020 – May 2021

- Researched related work and designed a deep learning classifier to predict if a Covid-19 and 5G related Tweet is fake news or not
- Given a graph of each Tweet's distribution, computed features using the Graph2Vec and DeepWalk algorithms
- Compiled findings into a paper presented at the MediaEval 2020 Conference, and received the second best score of 14 entries

### DoNotPay

**San Francisco, CA**

Software Engineering Intern - Artificial Intelligence

Summer 2020

- Built and shipped an internal database management tool for non-engineers on the team using Apollo, React, and GraphQL
- Created interactive visualization tools showing company progress over time in selected metrics such as user outreach
- Designed and engineered an interactive model estimating the likelihood of users subscribing based on their previous actions
- Architected an efficient pipeline using MongoDB and Python to automatically query, clean, and analyze user data

### UC Berkeley Mobile App

**Berkeley, CA**

iOS Developer

February 2020 – June 2020

- Worked with three other students to develop, maintain, and debug the UC Berkeley Campus Information iOS app
- Created interactive views enabling users to see library schedules and space availability, and book study rooms
- Modified the team-wide campus landmark data storage system to access information from Firebase more efficiently

### Berkeley Renewable and Appropriate Energy Lab

**Berkeley, CA**

Data Science Intern

September 2018 – May 2019

- Led a data analysis team of five students to develop an interactive energy usage model of the entire country
- Collected, cleaned, and analyzed data to find correlations between selected social demographics and carbon emissions
- Used RStudio, matrix math, and econometric methods to implement linear regressions and visual models of data

## Projects

### MAD Donations

**August 2020**

- Created a non-profit monthly subscription service that matches users with charities that work in the areas that users support (e.g. LGBTQ+ Rights, Environmentalism)
- Designed the user sign up flow of creating an account, selecting causes to support, and choosing monthly donation amounts
- Implemented Firebase Auth for user account management
- Orchestrated and implemented MongoDB schemas on the backend server using Flask MongoEngine

### Pokedex iOS Application

**September 2020**

- Used Xcode to create an iOS application in which the user is able to view Pokemon by grid or list as well as search by attribute
- Designed a data storage system enabling the user to store Pokemon as favorites that persist after the app is closed and reopened
- Implemented an informational page for each Pokemon in which a summary, picture, and link to more information is displayed

## Other

**Languages:** Web (React, JavaScript, TypeScript, HTML, CSS), Mobile (Swift, Xcode), Backend (Python, Flask, Java, Go, C)

**Technologies:** Database (SQL, MongoDB), Machine Learning (TensorFlow, TensorBoard, PyTorch)

**Affiliations:** Alpha Epsilon Pi, UC Berkeley ASUC OCTO, Engineers for a Sustainable World, National Merit Scholar Finalist