

Matthew Dong

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EDUCATION

University of California, Berkeley

Berkeley, CA

- *Bachelor of Arts in Data Science*

Exp. Graduation: Spring 2021

Concentration: Environment and Resource Management

GPA: 3.92

EXPERIENCE

Computational Approaches to Human Learning (CAHL) Lab

Berkeley, CA

- *Software Developer & Research Assistant*

May 2018 - Aug 2020

- Collaborated on software development and machine learning research teams to build a course recommender system for UC Berkeley, annual traffic to site includes 10% of undergraduate population of 30,000 students.
- Managed data pipeline incorporating campus API data sources and semesterly student enrollment updates from the university registrar to retrain different neural network models used by system features.
- Performed full-stack web development & testing, built the site's course catalog search feature. (*askoski.berkeley.edu*)

Sabre Corporation

Southlake, TX

- *Software Engineering Intern*

May 2019 - Aug 2019

- Engineered new features and functions based on stakeholder requirements on Sabre's developer portal site (*developer.sabre.com*), used to access APIs from operational units across the company.
- Expanded test suite coverage for content management system (Drupal) enhancements, worked in agile environment.

Stat 89A: Linear Algebra for Data Science

Berkeley, CA

- *Teaching Assistant*

Nov 2017 - May 2018

- Collaborated with lead instructor and staff members to scale course infrastructure as well as prototype materials for the pilot full-version offering of the class. Guided students during office hours and discussion sections.

AWARDS AND PUBLICATIONS

- **Conference Proceedings:** Dong, M., Yu, R., Pardos, Z.A. (2019) Design and Deployment of a Better Course Search Tool: Inferring latent keywords from enrollment networks. In M. Scheffel & J. Broisin (Eds.) Proceedings of the 14th European Conference on Technology Enhanced Learning (EC-TEL). Delft, The Netherlands. Springer. Pages 480-494.
- **Undergraduate Research Fellow:** Received \$6,000 grant to conduct a self-directed research project under the guidance of a faculty mentor and presented resulting work at a university research conference.

PROJECTS

- **Spend Friend:** Personal finance manager web app with Amazon Alexa skill. Developed RESTful API service to access database storing user info and spending history. Won PayPal Sponsor Prize at Cal Hacks 5.0. (*Firebase, Flask, HTML & CSS, Heroku, PayPal API Webhooks*)
- **SafeFront:** A next generation 911 dashboard for both first responders and relief agencies. Built backend service housing image classification and sentiment analysis models processing incoming mobile data streams. Top 30 finish at PennApps XVIII out of 200 teams. (*React, Flask, Google Maps API, Twilio API*)
- **Remote Cardboard:** Screen mirroring device allowing users to control multiple devices from a Raspberry Pi interface. Client-server communication enabled using WebSockets API. (*Raspberry Pi, WebSockets, Javascript, Python*)
- **By the Numbers:** Personal case studies based on biometric data collected on my life for the past 5 years. Built models, created visualizations, and performed statistical analyses to answer questions regarding relationships between productivity, sleep, happiness, stress, and others. Published blog posts with findings on personal website. (*R*)

SKILLS

- **Languages:** Python, Javascript, HTML/CSS, Java, R, Bash, SQL
- **Web Technologies:** Git, Angular, Flask, MySQL, Apache Airflow, Browser developer tools, Docker, TravisCI
- **Data Science Tools:** PyData Stack (Pandas, NumPy/SciPy, SciKit-Learn, NLTK, PyTorch), L^AT_EX
- **Relevant Domains:** Full-Stack Web Development, Data Science, Machine Learning

Updated: 08/2020