

# Matthew Dong

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## EDUCATION

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- **University of California, Berkeley** Berkeley, CA  
*B.A. Data Science - High Distinction in General Scholarship (GPA: 3.93/4)* *Grad: Spring '21*

## EXPERIENCE

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- **EcoDataLab** Berkeley, CA  
*Software Engineering Intern (Full-Stack)* *Aug 2020 - July 2021*
  - Led student developer team working on carbon footprint tool ([coolclimate.org/calculator](https://coolclimate.org/calculator)) used by both general public and businesses. Organized sprint timelines and communicated goals and progress with stakeholders.
  - Implemented UI features with React/Redux, managed deployments through GCP Web Hosting. Improved API service logic, updated research databases to increase API response accuracy. ([api-central.berkeley.edu/api/11](https://api-central.berkeley.edu/api/11))
- **Computational Approaches to Human Learning (CAHL) Lab** Berkeley, CA  
*Software Developer & Machine Learning Research Assistant* *May 2018 - Aug 2020*
  - Collaborated on both research and development teams to build a course recommender system for UC Berkeley, annual traffic to site includes 10% of undergraduate population of 30,000 students. ([askoski.berkeley.edu](https://askoski.berkeley.edu))
  - Built and managed data pipeline on remote server using Apache Airflow consuming campus APIs and registrar enrollment data dumps to retrain neural net model predictions and update system MySQL database.
  - Engineered full stack features using Angular/Flask, helped containerize back-end API service with Docker.
- **Sabre Corporation** Southlake, TX  
*Software Engineering Intern* *May 2019 - Aug 2019*
  - Developed CMS enhancements based on client specifications on Sabre's developer portal ([developer.sabre.com](https://developer.sabre.com)), expanded test suite coverage for Jenkins continuous integration pipeline, worked in agile environment.
- **UC Berkeley Statistics Department** Berkeley, CA  
*Teaching Assistant (Stat 89A: Linear Algebra for Data Science)* *Nov 2017 - May 2018*
  - Worked with 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

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- **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. Submitted work for publication and presented accepted work at a research conference.

## PROJECTS

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- **Spend Friend:** Personal finance manager web app with Amazon Alexa integration. Developed RESTful API service accessing database storing user info and spending history. Won PayPal Sponsor Prize at Cal Hacks 5.0. (*Firebase, Spring Boot, AWS Elastic Beanstalk, PayPal API*)
- **SafeFront:** A next generation 911 dashboard for 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*)
- **CA County Waste:** Waste management project predicting waste generation for CA counties based on historic data and other selected features. Wrote scripts to scrape data from government websites, trained and evaluated different prediction models, created a geospatial heat map with optimal model. (*Selenium, Leaflet, Geopandas, Folium*)

## SKILLS

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- **Languages:** Python, Java, Javascript, HTML/CSS, Go, Bash, SQL
- **Software Tools:** Git, Spring Boot, Flask, MySQL, Postgres, Angular 7+, React/Redux, Airflow, TravisCI, Docker, Amazon Web Services, Google Cloud Platform, Postman, DevTools, IntelliJ, Visual Studio Code
- **Domains:** Full-Stack Web Development, DevOps, Data Science, Machine Learning

Updated: 9/28/2021