Matthew Dong

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EDUCATION

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

EXPERIENCE

EcoDataLab Berkeley, CA
Software Engineering Intern *Aug 2020 - July 2021*
- Led student developer team working on carbon footprint tool *(coolclimate.org/calculator)* used by both general public and businesses. Organized sprint timelines and maintained communication of goal progress with stakeholders.
- Implemented UI features with React/Redux, managed deployments through Google Cloud Platform. Improved GoLang service logic, updated research databases to increase API response accuracy. *(coolclimate.org/api)*

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)*
- Built and managed data pipeline using Apache Airflow that incorporated campus APIs and registrar enrollment data dumps to retrain neural net model predictions and update MySQL DB tables used by system features.
- Engineered full stack features using Angular/Flask, helped containerize back-end service with Docker.

Sabre Corporation Southlake, TX
Software Engineering Intern *May 2019 - Aug 2019*
- Developed CMS user interface enhancements based on client specifications on Sabre's developer portal *(developer.sabre.com)* used to access company APIs, expanded test suite coverage, worked in agile environment.

Stat 89A: Linear Algebra for Data Science Berkeley, CA
Teaching Assistant *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

- **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

- **Spend Friend**: Personal finance manager web app with Amazon Alexa skill. Developed RESTful API service accessing database storing user info and spending history. Won PayPal Sponsor Prize at Cal Hacks 5.0. *(Firebase, Flask, HTML & CSS, Heroku, PayPal API)*
- **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, Spring Boot, 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

- **Languages**: Python, Javascript, HTML/CSS, Java, Go, Bash, SQL
- **Software Technologies**: Git, Flask, Spring Boot, MySQL, Angular, React, Docker, Apache Airflow, TravisCI
- **Data Science Tools**: PyData Stack (Pandas, NumPy/SciPy, SciKit-Learn, NLTK, PyTorch), R
- **Domains**: Full-Stack Web Development, DevOps, Data Science, Machine Learning