

Alan Liang

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Education

University of California, Berkeley **Aug 2016 - May 2021**
M.Eng in **Electrical Engineering & Computer Sciences (EECS)**
Concentration: Data Science and Systems
B.A. in **Computer Science**, B.A. in **Economics with honors**
GPA: 3.94 (Technical GPA: 3.98), Highest Distinction

Relevant Coursework

Computer Science Databases, Algorithms, Data Structures, UI/UX, Machine Struct.
Data Science Machine Learning, Data Science Principles, Business Analytics
Economics Econometrics, Macro/microeconomics, Financial Econ, Macro Policy

Experience

Boston Consulting Group (GAMMA) **Jun 2020 - Current**
Summer AI Software Engineer *Boston, MA (Remote)*

- Build a personalization data pipeline processing 100k+ users to increase customer conversion and retention for client during COVID using PySpark.
- Implement orchestration for the team's 6 different data pipelines through Airflow, leading to 2x speed-up. Set up continuous integration testing and notifications.
- Write programs to conduct analysis & detect discrepancies in upstream data.

QuantCo **Jun 2019 - Aug 2019**
Data Science Intern *San Francisco, CA*

- Created market pricing models on behalf of QuantCo for a large market-maker client using R on Hive, reducing error by 50% from existing models.
- Implemented and productionalized models on GCP w/ tensorflow, integrating the deployment process into the client's machine learning pipelines for production. Built tools and APIs for sellers site-wide to automatically price inventory.
- Conducted economic research to propose more optimal pricing strategies.

Seele Tech **May 2018 - Aug 2018**
Software Engineering & Data Analytics Intern *San Francisco, CA*

- Implemented data pipeline of social metrics from scratch: wrote programs for data collection, deployed databases, conducted data analysis for insight, and built a live dashboard to present metrics and KPIs. Used AWS for deployment.
- Created bots for alerts and auto moderation in channels with 30k+ members, using NLP for sentiment monitoring and ML classifiers for spam detection.

Microsoft **May 2017 - Jul 2017**
Program Management Intern *Shanghai, China*

- Worked on customer acquisition for Azure IoT tooling through search engine optimization, A/B testing, customer development, and developer outreach.
- Conducted web traffic and user telemetry analysis through SQL & Power BI for data insight to improve conversion and optimize user experience.
- Helped double monthly traffic and grow monthly attached users by 6 times.

Division of Data Sciences, UC Berkeley **Jan 2018 - Current**
External Team Lead *Berkeley, CA*

- Lead team to grow data science education initiatives across 200+ institutions.
- Manage an agile development team to build open-source course infrastructure, including auto-grading and telemetry logging used by 8k+ students.
- Run a 100k+ student edX MOOC, providing active support to students online.
- Grow team from 1 person to 21 people, greatly expanding team responsibilities.

Research & Projects

Augmented Synthetic Controls
Build and refine an open source R package w/ stats & economics faculty implementing the augmented synthetic control method, used to analyze treatment effects in panel data settings.

Dish Based Reviews

Scraped and extracted info from all Yelp reviews in SF to perform dish based sentiment analysis and thus provide users with ordering recommendations. Trained a new sentiment analyzer from the collected review data.

Occupancy Taxes

Conducted causal inference of changes in price and quantity in the short-term rental market caused by a newly introduced occupancy tax in Boston, using the synthetic controls method.

Conspicuous Consumption

Analyzed social media data for research on individual conspicuous consumption. Built classifiers on profiles for predictions and feature analysis.

National Data Sci Education

Co-author of peer-reviewed papers examining data science education and infrastructure in US & Canadian universities. Paper was presented at SciPy2018 & 2019 and JupyterCon.

Activities

Course Co-Founder & Lecturer

Lecture for the first data science & economics course at Cal to 150 students. Create interactive material based on real-world data in Jupyter.

Teaching Assistant

Instruct lab and discussion sections for *Foundations of Data Science*.

Microsoft Student Partner

Empower students with technology mainly focusing on Azure services.

UPE Nu Chapter

Member of UPE's UC Berkeley chapter, a computer science honor society. Part of web development committee.