

OMKAR WAINGANKAR

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EDUCATION

University of California, Berkeley

Berkeley, California

Electrical Engineering & Computer Science Major; GPA: 3.85

August 2017 - May 2021

- Coursework: Data Structures (Java), Algorithms, Computer Architecture (C), Discrete Math & Probability, Foundations of Data Science, Ruby on Rails Decal, Machine Learning Decal
- Honors: Cal Alumni Association Leadership Award Recipient (2x), Eta Kappa Nu (HKN) Candidate

EXPERIENCE

GoodlyLabs & Berkeley Institute of Data Science

Berkeley, California

URAP Undergraduate Researcher

January 2018 - Present

- Open source initiative to liberate digital archives currently inaccessible for research purposes
- Developed a full stack web app in Flask to host a one-of-a-kind queryable congressional speech database
- Captured and parsed 1.2M Congressional Record transcripts and XML metadata logs from past 24 years
- Leveraged BeautifulSoup4, Requests, Pandas, SQL, AWS to quadruple web scraping/parsing efficiency
- Implementing topic modeling ML algorithms to analyze behavior of 1,000 congressional representatives
- Link: searchlight.goodlylabs.org; research paper in progress

INFORMS O.R. & Analytics Student Team Competition

September 2018 - Present

- Analyzing how autonomous vehicles can optimize the vehicle delivery process for General Motors
- Producing an adaptable delivery network consisting of routing for each plant-dealer-vehicle combination
- Creating visualizations with Tableau, leveraging INFORMS software, and architecting linear programs
- Involves the entire practical data analytics pipeline: from framing the problem to building a final model

UC Berkeley's Space Technologies and Rocketry Team

Berkeley, California

Lead Web Developer

May 2018 - Present

- Crafted a custom, maintainable front-end to showcase CalSTAR's mission, team, projects, and docs
- Platform to centralize the organization's activities, publicize semester progress, and attract new partners
- Coming soon: member portal, real-time inventory, parts and tools check-in/out, email subscription
- Link: stars.berkeley.edu

Computer Science Mentors

Berkeley, California

CS 61A Senior Mentor + Course Staff Tutor

January 2018 - Present

- Lead two small-group tutoring sections per week and one-on-one weekly office hours
- Guide junior mentors in refining their instructional style through shadowing, check-ups, and meetings
- Write and edit weekly pedagogical references, worksheet problems, and solutions for all mentors
- Spearhead taskforces to plan midterm review sessions and facilitate content creation

PROJECTS

<https://github.com/Omkar-Waingankar>

Political Party Classifier

Innovate Berkeley Hackathon, October 2018

- Implemented a naive Bayes classifier in Apache Spark to categorize speeches as Republican or Democrat
 - Sourced congressional speeches from Searchlight, an open source research database
- Modified existing MapReduce pipeline for Yelp classifier presented in computer architecture course

Innovate Berkeley Website

May 2018 - Present

- Redesigned Innovate Berkeley 2.0 website using Rails, HTML5/CSS3, Bootstrap, and JavaScript
- Leveraged UI/UX elements to convey Innovate Berkeley's mission and attract sponsors/innovators
- Link: www.innovateberkeley.org