

Yash Dave

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📚 Education

University of California, Berkeley

Berkeley, CA

Intended B.A. in Applied Math & Data Science; Public Policy Minor (3.91 GPA, Dean's List)

2021–2024

Coursework: Functional Programming, Multivariable Calculus, Discrete Math & Probability, Data Structures/Algorithms, Linear Algebra*, Principles & Techniques of Data Science*, Math-intensive Macroeconomics*, Public Policy Analysis*

Activities: Effective Altruism Berkeley, Debate Society of Berkeley, Matriculate, Math Undergraduate Student Association

👜 Experience

*fall 2022

Strive Math (YC S21)

Remote

Math+Code Teacher and Operations Intern

May 2022–present

- Streamlined hiring ops and built Applicant Tracking System from the ground up on AirTable
- Underwent intensive teacher training and will be teaching 1-on-1 classes to middle schoolers with p5.js

Meet Your Future: Job Search Effort and Aspirations of Young Job-seekers Project

Berkeley, CA

Undergraduate Research Apprentice

Jan 2022–present

- Developed topic modelling pipeline to classify topics in 500+ transcript dataset using zero-shot classification
- Performed sentiment analysis and emotion detection using VADER and NRC dictionary, creating visualizations using ggplot2
- Conduct literature reviews, visualize supporting data, draft/propose sections and copy-edit manuscripts

Modelwise.ai

Berkeley, CA

Business Development Intern

Dec 2021–May 2022

- Engaged in competitor analysis within hardware product life-cycle management and safety engineering sector
- Developed business models and pricing strategies for integrated certification marketplace model

👋 Skills

🔥 **Proficient:** Python, Java, R, WordCloud, Natural Language Processing, \LaTeX , Git/Terminal, VSCode/IntelliJ

👉 **Novice:** Javascript, C, React, Node.js, WordPress, SQL, Data Visualizations

🔧 Projects

Random Walks in a \mathbb{Z}^2 Lattice

May 2020–Feb 2021

- Enumerative combinatorics paper arriving at a formula for probability of a meeting between grid walkers in 2D
- Analysed 20000+ data points, developed novel approach to identify trends and found applications in urban design

Sentiment Analysis on Amazon Alexa Reviews Dataset

Jun 2020–Aug 2020

- Cleaned 3000+ review dataset using techniques like Stemming, Lemmatization and applied Word2Vec
- Performed binary classification of reviews using MLPClassifier (95% acc.), Linear SVM (90% acc.), BERT (94% acc.) models with Keras and visualised data using WordCloud

Personal Coding Projects

Sep 2021–Apr 2022

- Built Gitlet, a version-control system mimicking basic features of Git (commit, log, checkout, merge, branches).
- Built and made bots/AI for mathematically intuitive games — Plants vs Zombies, Typeracer (word-differentials, autocorrect), Hog (extended dice game), Blocks (Tetris variant), Ataxx (7x7 Checkers variant).
- Built a Parser/Interpreter for Scheme (LISP) in Python, and an upgraded Enigma Encryption Machine in Java.

💡 Leadership

Lead Organizer, TEDxYouth@GEMSMoernAcademy

Mar 2019–Jan 2021

- Prepared internal TED-Ed curriculum, oversaw technical department, curated external speaker lineup
- Mentored and guided internal speakers in refining and delivering their talk

Youth Ambassador, Tilly the Turtle Environmental Campaign

Sep 2017–Feb 2021

- Co-organized 15 beach cleanups, collecting a total of 25000 cigarette butts and 650 kgs of plastic
- Featured in local newspaper, won 1st place (\$2700) in Year of Zayed competition

🏆 Awards

3rd Place, EA Berkeley's AI Safety Distillation Contest

May 2022

Gates Foundation Case Competition, Finalist (Honorable Mention)

Nov 2021

UAE National Debate Team Member, ranked 20th globally in WSDC Macau 2021

Jul 2021

Euclid Math Contest Medal: School Topper, Certificate of Distinction (Top 25% Worldwide)

Apr 2021

Commendation, Oxford & Princeton's John Locke Institute Essay Competition Politics Category

Sep 2019