Yash Dave

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📚 Education

University of California, Berkeley	**Berkeley, CA**
Intended B.A. in Applied Math & Computer 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

this semester

Modelwise.ai	**Berkeley, CA**
Technology Policy Intern	Jul 2022–present

- Authoring report on future European legislation influencing long-term business model (Data Governance Act, Chips Act, etc.)
- Analysing impact of changing hardware standards on product-market fit in the context of broader market dynamics

UC Berkeley College of Engineering	**Berkeley, CA**
Course Staff	Jun 2022–Aug 2022

- Supported data structures and algorithms course (CS61B) by providing debugging help and answering conceptual doubts

Strive Math (YC S21)	**Remote**
Operations Intern	May 2022–Jun 2022

- Increased hiring ops efficiency by 20% by building Applicant Tracking System on AirTable, automated two-thirds of the applicant video review process and prepared necessary documentation on Notion

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, 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.

🏆 Awards

3rd Place, EA Berkeley 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