

# Jake Pappo

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## EDUCATION

**Harvard University** | GPA: 3.9

Cambridge, MA

A.B. in Statistics (Data Science track), Minor in Classics

*Expected May 2025*

Coursework: Machine Learning, Data Science, Probability, Linear Algebra, Microeconomics, History of Capitalism

**Belmont Hill School** | GPA: 4.54, ACT: 36

Belmont, MA

Regeneron Semi-Finalist, US History Term Paper Prize, Three-sport Varsity Athlete

*June 2020*

## EXPERIENCE

**Sauron**

San Francisco, CA

*Machine Learning Engineer*

*Jan – Aug 2024*

Sauron is innovating the home security market by integrating military-grade technology into consumer products.

- Developed and deployed sensor fusion models for real-time object detection, tracking, and 3D mapping
- Collaborated with software and hardware engineers to integrate the tech stack into a functional consumer product
- Recruited as employee #2 by CEO Kevin Hartz (co-founder, Eventbrite and A\* Capital) prior to \$18M seed round

**Harvard Business School**

Boston, MA

*Research Assistant under Josh Lerner (Professor in PE, VC, and Entrepreneurship)*

*Jan 2023 – Jan 2024*

- Helped formulate a framework for sustainable and financially motivated investments in the private sector
  - Drafted case studies on deals across different natural asset classes (book in progress)
- Researched the Web3- and crypto-equivalents of traditional startups and venture capital firms

**Dent Wizard**

*Business Intelligence*

*Jun 2023 – Aug 2023*

- Analyzed financial data and produced reports with PowerBI to evaluate the company's nationwide locations
- Presented findings to executive management to inform data-based decisions in pursuit of our \$1B revenue goal

**TrailerCentral**

*Data Analyst*

*Jun 2022 – Aug 2022*

- Developed an algorithm to calculate fair market value and assign price ratings to >1 million e-commerce listings
- Designed specialized reports based on industry data analysis for internal use and external commercialization

**Mass General Hospital, Department of Neurosurgery**

Boston, MA

*Carter-Balaj Research Lab Member*

*Sep 2018 – May 2020*

- Engineered a real-time minimally invasive brain cancer diagnostic that identifies mutant mRNA in glioma cells
- Selected as a national Regeneron Science Talent Search Scholar for my research

## TECHNICAL SKILLS & PROJECTS

**Advanced:** Python, R, PowerBI; **Proficient:** SQL, C++, HTML/CSS

**ML Techniques:** FFNs, CNNs, RNNs, transformers; linear regression, random forests, gradient boosting

**Sentiment Analysis of Audio Recordings**

*Spring 2024*

- Predicted a speaker's emotion, out of 8 total, with deep learning models trained on 1,500 labelled recordings
- Achieved >50% accuracy with a custom transformer model and >60% by fine-tuning Meta's Wav2Vec model

**Partisan Clustering of Subreddit Networks**

*Spring 2024*

- Built and visualized the network of subreddits that originates from Reddit's "Politics" page
- Presented final poster on Reddit's polarizing recommendation algorithm at Harvard's "AI @ FAS Symposium"

**Predicting Stock Price Variation**

*Fall 2023*

- Achieved 75% accuracy in predicting whether stocks rose or fell YoY with financial data on over 4,000 tickers
- Crafted a data processing pipeline and trained multiple ML models (regression, random forest, boosting, stacking)

## EXTRACURRICULARS

**Harvard Financial Analysts Club**

- Developed a foundational knowledge in accounting, financial statement analysis, and valuation methodologies
- Participated in stock pitch competitions, honing skills in researching, assessing, and presenting investments

**Harvard Undergraduate Think Tank (Nuclear Advocacy Project)**

- Conducted research and co-authored a policy memo using economic, technological, and historical analyses
- Networked with leaders in the field to coordinate a high-impact speaker event surrounding my team's work