

# Pranav Ramesh

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## EDUCATION

### Harvard University

Aug. 2022 – May 2026

Cambridge, MA

*A.B. in Computer Science, A.B. in Statistics, Concurrent S.M. in Computer Science*

- **Selected Coursework:** Artificial Intelligence, Computing Hardware, Data Structures & Algorithms, Linear Algebra & Real Analysis, Probability, Systems Programming & Machine Organization
- **Extracurricular Activities & Leadership:** **2022 Coca-Cola Scholar, 2025 Neo Scholar, Z Fellow**, Harvard Computer Society, Harvard Tech for Social Good (Senior Software Engineer), Human Capital Venture Partner
- **GPA:** 3.88/4.0

## EXPERIENCE

### Software Engineering Intern, AI

June 2025 – August 2025

Citadel

New York, NY

- Designed and implemented AI-powered research automation agents to accelerate investment workflows.

### Software Engineering, Applied AI (Contract)

December 2024 – February 2024

Coframe

San Francisco, CA

- Developed an agentic AI-powered landing page variant generation demo (Flask, LangGraph backend; React frontend).
- Presented to four enterprise banking companies, successfully converting initial calls into proof-of-concept engagements.

### Software Engineering Intern, Outbound Automation Team

May 2024 – August 2024

Ramp

New York, NY

- Developed a multi-agent-chained generative AI tool to synthesize meeting preparation digests for account executives, saving 450 hours of work weekly across the company (Python, Flask, Sentry, Datadog).
- Created models to better capture and enrich prospects, contributing to a 100% increase in closed wins (SQL, Snowflake, DBT).
- Co-developed a native iOS in-app assistant to navigate users throughout the app using natural language, successfully ported over TinyLlama with quantization and palettization to iOS (Python, Swift, CoreMLTools).

### Undergraduate AI Researcher

June 2023 – August 2023

Harvard Programming Languages Group

Cambridge, MA

- Improved theorem generation using decomposition, increasing proof accuracy by 15%, and developed an LLM plugin to refine Coq proofs (Python).
- Fine-tuned Seq2Seq Transformer model, boosting proof generation efficiency by 30% (Python, C++).

## PROJECTS

### Pen AI | Next.js, GPT-4o, GitHub OAuth, Serverless, AI Security

January 2025

- Developed an AI-powered penetration testing platform for enterprise security teams
- Built a system end-to-end that runs AI-based penetration reporting at scale, performs advanced vulnerability detection, and suggests security " edits" in real time.

### Supernova | Next.js, Groq, OpenAI, Perplexity, Supabase, HeyGen, Runway ML, Cartesia

February 2025

- Built an end-to-end AI infrastructure to generate fully personalized influencer-style video ads from a single product link.
- Automated the entire pipeline — AI agents perform market research, select an ideal influencer persona, script the ad, synthesize the voice with Cartesia, generate the avatar with HeyGen, and produce B-roll via Runway ML — all orchestrated in minutes.
- **Won 2nd Place Grand Prize at Stanford TreeHacks 2025.**

### Rally AI | Next.js, Python, Firecrawl, Perplexity, Supabase, Cartesia.ai, SyncLabs, Pexels

September 2024

- Created the first fully compliant AI platform to generate personalized political ads featuring AI-driven candidate personas.
- Pipeline scrapes local news and economic data with Firecrawl + Perplexity, curates insights in Supabase, generates scripts in the candidate's voice with GPT4o-mini, produces voice narration via Cartesia, lip-syncs footage with SyncLabs, and overlays B-roll from Pexels.
- **Won 2nd Place Grand Prize & Best Design at PennApps 2024.**

## TECHNICAL SKILLS

**Languages:** Python, C/C++, SQL (Postgres), JavaScript/TypeScript, HTML/CSS, R, Java

**Frameworks:** React, Next.js, Node.js, Flask, FastAPI, Celery, Snowflake, DBT, Sentry, Datadog, Docker, AWS

**Libraries:** PyTorch, Pandas, NumPy, Matplotlib

# Maitri Shah

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## EDUCATION

### Harvard University

Aug 2022 – May 2026

*Master's in Computer Science, Bachelor's in Computer Science, Minor in Statistics | GPA: 3.72/4.0 Cambridge, MA*

- **Graduate Coursework:** Algorithms, Differential Privacy, Human-Computer Interactions, Artificial Intelligence.
- **Undergraduate Coursework:** Data Structures & Algorithms, Data Science, Probability, Statistical Inference.

## EXPERIENCE

### Proprietary Data Research Intern

Summer 2025

*Point72 Asset Management*

New York, NY

- Source and leverage alternative datasets, alongside in-depth ecosystem-wide fundamental research, to evaluate long/short ticker KPIs and projected company health to provide insight into future performance.
- Develop quantitative models and dashboards using SQL, Python, and Microsoft Excel to ultimately advise on strategic investment decisions based on 10+ data angles.

### Secretary-General (President)

Mar 2025 – Present

*Harvard Model United Nations Dubai*

Cambridge, MA

- Elected to organize Harvard's second in-person Model UN conference in Dubai in January 2026, with an expected attendance of 1000+ high school student delegates from 30+ countries.
- Lead a staff of 40 individuals, both across the Harvard campus and external volunteers, manage a budget of over \$600,000, and form corporate partnerships for the successful execution of the conference.

### Broker Strategy Data Science Intern

Summer 2024

*Point72 Asset Management*

New York, NY

- Automated manual processes using SQL, Python, and Databricks, reducing 100+ hours of manual labor per cycle.
- Developed 5+ data visualization ecosystems in Tableau, enhancing internal analytics and decision-making.
- Analyzed product flow data in Microsoft Excel, optimizing insights for internal and external strategy reviews.

### President

Mar 2024 – Apr 2025

*Emerging Technology Group*

Cambridge, MA

- Managed 8 project teams, 70+ members, and many partners such as Google, NASA, and Unity Technologies.
- Communicated with external partners, sourced new projects, spearheaded an international conference for high school students, and expanded the organization into different technology sectors to ultimately increase its size.

### Data Science & Calculus Course Assistant

Jan 2024 – Present

*Harvard University*

Cambridge, MA

- Support instruction in introductory data science (from 09/2025) and calculus, series, and differential equations (01/2024 to 05/2025), assisting through office hours and grading.
- Provide individualized support to students by clarifying concepts and guiding problem-solving.

### Research and Data Analytics Consultant (Contract)

Summer 2022, Summer 2023

*Inn from the Cold*

Calgary, AB

- Developed financial models and project budgets using SQL, R, and Microsoft 365, supporting grant applications and resource allocation decisions.
- Spearheaded the development of 3 branches of novel educational programs for families at homeless shelter, involving 40+ residents in financial literacy and wellness-based workshops.

## PROJECTS

### PolicyMART | Python, OpenAI API, Mistral API, FAISS, SentenceTransformers

Course Project

- Developed LLM safety framework using multi-round automatic red-teaming with dynamic policy refinement and external FAISS-backed storage system to limit harmful outputs. Reduced violation rates by 5% in 15 iterations.

### Data Entry and Verification Automation Tool | Python, SQL, Databricks

Automated Tool / Project

- Developed an automation tool to match data among different sources and verify correct entries, flag errors, and organize multiple datasets for immediate use for further analysis, saving over 100 hours per cycle.

### Teacher Participation & Student Equity | Python, R, Pandas, Seaborn, SciPy

Research Publication

- Employed Python libraries and Kaggle to analyze 2 large datasets for 100+ nations and multiple factors, programming a Python script to iteratively calculate correlation, sort findings by r-value, and graph results.

**Languages:** SQL, Python, R, C++, JavaScript, Java, HTML & CSS, TypeScript.

**Frameworks/Libraries:** Databricks, Llama/Mistral LLMs, Flask, Tableau, Microsoft Office, NumPy, Pandas.

# NAVYA RAMAKRISHNAN

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## EDUCATION

**Harvard College** || Cambridge, MA

August 2022 – May 2026

A.B. in Computer Science & Mind, Brain, and Behavior (MBB) | Concurrent Master's in Computer Science

**Relevant Coursework:** Data Structures & Algorithms, AI, Graduate-Level Data Science, Probability, Statistical Inference, Neurobiology of Behavior, Neuroimaging and Big Data in Connectomics (Upcoming)

**Relevant Awards:** Harvard Generative AI Research Program \$7k Stipend Recipient, Generation Google \$10k Scholarship, NCWIT Award for Aspirations in Computing - Regional Winner & National HM, Grand Award in Systems Software, & Special Awards from CIA and IEEE at Int'l Science and Engineering Fair

## WORK EXPERIENCE

**Software Development Intern @ Amazon AWS GenAI**

06/2025 – 08/2025

- Implemented LLM-powered response compression with Python and Claude, reducing large third-party API responses by 70-90%, and improving efficiency in Amazon Q's Generative AI Chat Assistant
- Built and deployed a FastAPI endpoint, integrating Python and Java microservices to maximize context window utilization and cut latency by up to 2.3 seconds, implementing compression at the source
- Collaborated with Applied Science and Engineering teams to integrate and deploy the compression solution, supporting Amazon Q's broader GenAI platform objectives and streamlining downstream GenAI processing

**AI Engineering Intern @ Bedford Bridge**

06/2024 – 08/2024

- Designed AI and machine learning models to enhance predictive analytics for investment assessments
- Automated the investment thesis-to-company generation process, reducing research time by 70% using OpenAI & NLP, efficiently identifying 20 potential biotech companies aligned with investment strategies
- Developed AI-driven company analysis, automatically generating detailed investment theses documents, improving decision-making speed by 60%, providing a strong foundation for evaluating new opportunities

**Software Engineering Intern @ Amdocs**

06/2023 – 08/2023

- Developed a data corruption/anomaly detection system for AT&T Billing Customer Services
- Created a robust framework using Apache Nifi, Python, Groovy, and SQL to detect anomalies in billing data
- Performed a trial run on 200K active customers; Reduced 24+ hour manual process to automated instantaneous process, processing each customer in 77ms, ~1million/day; found the top 10 issues contributing to these anomalies, significantly improving data integrity and operational efficiency

## PROJECTS & PUBLICATIONS

**Smart Device for the Prediction of Epileptic Seizures using Machine Learning Algorithms** [IJRTE](#)

- Developed an accurate prediction device that utilizes raw EEG data for the prediction of epileptic seizures to alert patients of an oncoming seizure beforehand to escape dangerous situations.
- Applied Fast Fourier Transform and other signal processing techniques to extract important features
- Highest performing algorithm, Random Forest (RF) produced a prediction accuracy of 99.0%
- Embedded into portable, low-power hardware device to predict onset of seizure for possible wearable device

**Home Automation System for Neuromuscular Disorder Patients using BCI** featured on [IEEE](#) and [IEMS](#)

- Developed a brain computer interface-based home automation system that can be controlled only by brain activity to support people with neuromuscular disorders such as Amyotrophic Lateral Sclerosis
- Processed EEG data and trained Linear Discriminant Analysis Algorithm, connected with Raspberry Pi device through network connection to control respective home device (ex: TV or light) with 97.92% accuracy

## SKILLS

- Programming Languages:** Python, Java, SQL, OCaml, R, C, JavaScript, HTML, CSS, Groovy, Lua, Stata
- Tools and Frameworks:** Visual Studio, Jupyter Notebook, Git, Flask, Apache Nifi, SQLDev, Arduino IDE

# Mohamed Zidan Cassim

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## Education

### Harvard University

A.B. Candidate in Computer Science and Economics, GPA: 3.75

**Relevant Coursework:** Algorithms At The End of The Wire (CS2241), Graduate Distributed Systems (CS2420), Data Science I (CS109A), Abstraction & Design in Computation (CS51), Intro to Probability (STAT110), Vector Calculus & Linear Algebra (Math22A/22B), Innovation in Science & Engineering (ES139)

**Clubs & Societies:** HCS Product Labs (Case Team Leader, Salesforce & Assistant Product Manager), Harvard Data Analytics Group (Analyst & Sourcing Team), CS50 (Teaching Fellow, Course Assistant & Seminar Speaker), Archimedes (Board member), Woodbridge International Society (Treasurer), South African Society (President), Harvard College Debating Union (Speaker)

Cambridge, MA

Expected May 2026

## Professional Experience

### GoPepper

Miami, FL (Remote)

#### Product Management Intern

June 2025 – September 2025

- Co-leading the product roadmap for a novel AI shopping assistant, aligning a cross-functional team around clear OKRs and critical initiatives.
- Supporting leaders (including StubHub's founding COO and a former DoorDash Director) on product strategy, with a focus on maximizing user engagement. Presently cutting response times by over 50%, directly reconfiguring features to improve customer experience.

### CS50

Cambridge, MA

#### Teaching Fellow & Course Assistant

August 2023 - Present

- Lead tutorials and office hours, debugging code and explaining data structures and algorithms to a diverse student body.
- Teaching seminars on advanced concepts to students in one of the world's largest introductory programming courses.
- Assist in the production and execution of large-scale course events, including hackathons and software fairs.

### Bopa Moruo Private Equity

Johannesburg, South Africa

#### Private Equity Intern

June 2024 – July 2024

- Directly informed the due diligence process for a >\$50M acquisition of a large insurance firm by developing the competitive landscape analysis, presenting key findings on market positioning to the deal team.
- Gained skills in business valuation, LBO modeling, risk mitigation and the private equity process; learning directly from the co-founders and CEO.

## Ventures & Leadership

### Therapa.com

Cape Town, South Africa (Remote)

#### Co-Founder & Head of Growth

July 2025 – Present

- Co-founding a digital mental health partner to make therapy more accessible, aiming to overcome barriers of cost and stigma.
- Driving growth by defining the product roadmap through user research, developing GTM, and leading fundraising efforts.

### PenAI (CamelHacks 2025 Winner)

Cambridge, MA

#### Co-Founder

April 2025 – August 2025

- Co-founded a cybersecurity venture with automated penetration testing for vibecoders with a 0% false positive rate.
- Built the MVP in 36 hours as a team of 3, winning CamelHacks (\$5000 cash & 15 office hours with FoundersFund).

### HCS Tech for Social Good

Cambridge, MA

#### Co-Director of Exploration, Software Engineer

September 2024 – May 2025

- Engineered and deployed a full-stack AI chatbot for the non-profit OneDegree, reducing user query time by 99+% (from hours to seconds) by providing instant access to 26,000+ resources via a custom RAG pipeline.
- Co-directed an intensive software engineering program, including recruitment, selection, and training of 13 Harvard students.

### Quantumbridge

Johannesburg, South Africa

#### Co-Founder & Chief Technology Officer

May 2023 – August 2023, May 2024 - August 2024

- Co-founded a venture to address strategic collaboration gaps in the non-profit sector, securing R100,000+ in funding.
- Built and deployed a full-stack MVP; led a team of 5 across 4 different countries to conduct user research with 60+ stakeholders, synthesizing feedback to drive the product roadmap.

### Harvard Undergraduate Impact Capital Group (HUICG)

Cambridge, MA

#### Director of Sourcing, Case Team Lead

September 2024 – May 2025

- Led client acquisition for the impact investing group, securing a project pipeline with top-tier impact VC firms, including Africa Climate Ventures and Acre Venture Partners.
- Recruited and selected a high-performing team of 8 analysts from a competitive pool of 100+ applicants.
- Directed a 7-person team to produce investment memoranda for Africa Climate Ventures, delivering analysis that directly guided their impact capital deployment strategy.

## Skills & Awards

**Technical Skills:** Python, Java, C, C++, SQL, PowerBI, HTML/CSS, Javascript, React, Node.js, PHP, Laravel, Docker, Git

**Awards & Honors:** Winner, CamelHacks 2025 (PenAI); Finalist, South African National Debate Team; South African Mathematics Olympiad Runner-Up; Bronze Medal, International Teenage Mathematics Olympiad (ITMO)

**Languages:** English (Native), Afrikaans (Proficient)

**Interests:** (8 Ball) Pool, Gaming, Table Tennis, Padel, Conceptualizing (and working on) start-ups with friends