Dinesh Vasireddy

Harvard University | Software Engineering | AI/ML | GovTech

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Education

Harvard University

A.B. Computer Science, Statistics, and Government, 3.93/4.0

Cambridge, Massachusetts

Aug. 2023 - May 2027

Primary Activities: Harvard Innovation Labs (Venture Program), Harvard Data Analytics Group, HCS Tech for Social Good

Professional Experience

GovDash (YC W22)

Software Engineering Intern

Cambridge, Massachusetts

June. 2024 – Present

- Developing a robust AI-driven platform for government contracting using Next.is, Prisma, TRPC, and various LLMs. Implemented high-speed fuzzy and semantic search functionalities with Fuse is, OpenAI, Azure for efficient data retrieval, text embeddings, and filtering. Utilized Zod for schema validation and ensured secure and role-based access control.
- Building a robust semantically powered AI 'tour guide' and assistant for GovDash's core product to reduce customer confusion and improve product flows for finding opportunities, generating proposals, managing contracts, etc.

Harvard Undergraduate Data Analytics Group

Lead Data Scientist

Cambridge, Massachusetts

Oct. 2023 – Present Managed high-volume consulting cases for Fortune 500 clients, including Coca-Cola. Employing advanced statistical methods, including

Monte Carlo Risk Analysis, Market Segmentation Modelling, in Python/R to analyze high-volume datasets and predict market risks, trends, and generate business recommendations to improve high-value sales channels. Launched a Flask-based black box for market risk simulation, used by Coca-Cola's financial analysis division.

Arkansas United

Little Rock, Arkansas

Software Engineering Consultant

Oct. 2022 - Jun. 2023

Developed and launched an online automated resources portal AUNow (2K+ National Users, 10+ Partners, 50K Visits, Largest digital immigrant resources portal in Arkansas). Created machine learning models for electoral analysis and social media listening to develop optimized technology-related policy proposals, most notably for statewide race and ethnicity data tracking (Presented to Governor).

Datategy NextGen AI Solutions

Paris, France

Jun. 2022 - Sep. 2022

- Data Science and AI/ML Intern Developed, optimized, and deployed three new machine learning algorithms, focused on financial analysis and data management, for Datategy's PapAI Business AI Platform (20+ International Clients, \$3.6M Valuation) and contributed to company-wide strategy development for business outreach, industry expansion, and feature creation.
 - Notable Client Work: Optimization of Funding Allocation for French Economy Ministry, Data Management for European Hospitals

Walmart Global Technologies

Bentonville, Arkansas

Software Engineering and Data Science Intern

Sep. 2021 – May 2022

- Created and deployed a global E-Commerce Demand Forecasting Model (80% Accuracy, Used by 152K Merchants, Impacts 300M+ Users, Optimized Sales for 6.5M+ Products) of Walmart.com sales to optimize online Apparel sales
- Used Walmart's premier ML platform, Element, to design data pipelines, implement machine learning algorithms, conduct performance analysis, and efficiently deploy internal AI products on cloud.

University of Arkansas SEEDS Center

AI/ML Research Assistant and Investigator

Fayetteville, Arkansas

Apr. 2021 – Jun. 2023

Conducted and led NSF-sponsored research advised by Prof. Qinghua Li at UARK's Cybersecurity Center for Secure Evolvable Energy Delivery Systems (SEEDS) investigating the use of language learning models and machine learning algorithms (Doc2Vec, Fast.ai, Advanced BERT Models) to improve the Common Vulnerability Scoring System and effectively classify computer system vulnerabilities. Accepted for publication by TechConnect for Resilience Week 2023 in Washington D.C.

Independent Project Work

Commonwealth.ai: Political Research Tool [Next.js, Prisma, Azure, Python]

Dec. 2023 – Present

Built a web-based software tool that indexes and performs sentiment analysis on thousands of mainstream political articles daily, allows users to 'chat' with articles via LLMs and RAG (contextualized using political publications and Twitter trends), and maintain day-to-day research threads. Launching demos with 6 political campaigns in Arkansas & Texas.

Climate Neutral LLM [Flask, Google Cloud, Fast.ai, OpenAI, TensorFlow]

Nov. 2023 - Dec. 2023

Piloted a Custom LLM assistant (Used by 347 Brands) focused on generating comprehensive sustainability plans by analyzing your business' core operations. Fine-tuned on international climate standards using few-shot prompting, transfer learning, and domain adaptation. Built a scalable AI system with robust data pipelines from thousands of sources worldwide, including real-time streaming data and unstructured documents.

PolyData Electoral Innovation Network [React, Node.js, Python, TensorFlow, AWS, D3.js]

- Developed and sold a collection of database tools, AI-powered election analysis models, and back-office software focused on optimizing political campaign operations, interpreting electoral outcomes, and understanding voter behavior in local, state, and federal elections.
- Notable Client Contract Projects (\$70K ARR): Voter Pulse: Inactive Voter Identification Model (Acquired by 8 Campaigns), Electoral Report Generator (Acquired by 4 Campaigns & Government Offices), Immigrant Resources Portal (2K Users in Arkansas), Federal Election Simulations (Presented to 10+ State Politicians), etc.

Relevant Skills

- Technical Skills: Python, Java, R, JavaScript, HTML, CSS, Swift, C++, React, Node.js, Next.js, AWS, Google Cloud, Prisma, etc.
- Technical Areas: Data Science, AI/ML, Software Engineering, Web Development, UI/UX Design, Large Database Management
- Core Interests: Market Segmentation, Sales Optimization, Demand Forecasting, Electoral Science, Social Analysis, Governmental Operations