Dinesh Vasireddy

Harvard University | Software Engineering | Data Science | AI/ML | GovTech

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Education

Harvard University — Cambridge, Massachusetts
A.B. Computer Science, Statistics, and Government, 3.8/4.0 — Aug. 2023 – May 2027
- Primary Activities: Harvard Innovation Labs (Venture Program), Harvard Under. Data Analytics Group, Tech for Social Good

Bentonville High School — Bentonville, Arkansas
High School Diploma, 4.701/4.0 — Aug. 2019 – May 2023
- Notable Awards: Valedictorian, National Merit Scholar, Coca-Cola Scholarship Reg. Finalist, Presidential Scholarship Finalist

Professional Experience

Harvard Undergraduate Data Analytics Group — Cambridge, Massachusetts
Lead Data Scientist — Oct. 2023 – *Present*
- Managing high-volume consulting cases for Fortune 500 clients in aviation, beverages, etc. 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. Developing a black box for market risk simulation.

Harvard Tech for Social Good — Cambridge, Massachusetts
Senior Software Engineer — Oct. 2023 – *Present*
- Leading software engineering case teams to develop large language models, translation software, and optimized web tools for global non-profit clients. Piloted a Custom LLM assistant (Used by 347 Brands) focused on generating more comprehensive sustainability plans for corporates. Expanding emergency SOS applications to other languages with a high-speed translation tool and database management interface.

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 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 Asa Hutchinson).

Datategy NextGen AI Solutions — Paris, France
Data Science and AI/ML Intern — Jun. 2022 – Sep. 2022
- 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; Developed effective sales strategies that compete with other retailers using advanced predictive analytics.
- Other Notable AI/ML Projects: Review Sentiment Analysis, Efficient Product Bundling, Store Layout Optimization, etc.

University of Arkansas SEEDS Center — Fayetteville, Arkansas
AI/ML Research Assistant and Investigator — 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: LLM-Centric Political Research Tool *[Next.js, Firebase, Google Cloud, Python]* — Dec. 2023 – *Present*
- Built a 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 (Summer 2024).

AnyCheck: AI-Powered Fact Verification *[Flask, Google Cloud, Fast.ai, BERT]* — Nov. 2023 – Dec. 2023
- Assembled an application utilizing a custom-trained large language model enhanced via relevant news articles, integrated speech recognition, and real-time analytical feedback, designed to enhance information accuracy through voice-activated claims submission and comprehensive PDF essay analysis.

PolyData Electoral Innovation Network *[React, Python, TensorFlow, Google Cloud, AWS, D3.js]* — Sept. 2021 – Jun. 2023
- Developed and distributed a collection of contract-bound AI-driven election analysis models focused on optimizing political campaign operations, interpreting electoral outcomes, and understanding voter behavior in local, state, and federal elections.
- Notable Client Contract Projects: 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 Languages:** Python, Java, R, JavaScript, HTML, CSS, Swift, C++, MERN Stack (MongoDB, React.js, Express.js, Node.js)
- **Technical Skills:** 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