

NIRAV ROHRA

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EDUCATION

The University of Texas at Dallas, Dallas, TX

08/2023 - 12/2026

- Bachelor of Science in Computer Science and AI, with a Certification in Cyber-Defense
- Scholarships: **Academic Excellence Scholar**

SKILLS

- **Technical:** Python, TensorFlow, Pytorch, Numpy, Next.js, React, Power BI, SQL, noSQL, postgresql, Scikit Learn, Excel, Powerpoint, Caffe, Spark MLLib, Applied Statistics, NLP, Presto, Java (OOP), C++, HTML/CSS, Graphic Design, Machine Learning, Mainframe, Keras, AWS
- **Frameworks:** MLOps (CI/CD, Docker, Git), Predictive Data Analytics, Cybersecurity Risk Assessment, Threat Mitigation, Network Intrusion Detection and Prevention, Product Lifecycle Management, Team Dynamix, Bot Development, Jira, Kanban, Agile Scrum, Data Science
- **Certifications:** Oracle Certified Associate Java SE 8, Oracle University, Certified Yoga Instructor (04/2023), Excel Financial Modeling (04/2024)

STATE OF ART PROJECTS (Artificial Intelligence and Data Science)

01/2025 - Present

- Got Selected for **Google's TPU Research Cloud (TRC)** program and participating in it to train large language models (LLMs) at scale, with a focus on developing impactful AI solutions and publishing research in leading academic conferences
- Architected and deployed <https://www.niravrohra.com/>, an AI-augmented personal portfolio leveraging LLM integration, dynamic routing, and serverless functions on Vercel to enable real-time, natural language querying of my professional background and projects
- **Open-sourced (under MIT License)** Google Colab ML Jupyter notebook using UCI MAGIC Gamma Telescope data to classify gamma vs hadron particles with KNN, Naïve Bayes, Logistic/Linear Regression, SVM, TensorFlow NNs, K-Means Clustering. [Link](#)
- Developing **Novelty**, a full-stack AI-powered web application using Next.js, Firebase (Auth, Firestore, Storage), and Tailwind CSS that enables users to sign up with custom avatars, generate AI responses via local LLM models (trained on NVIDIA GPUs), access role-based admin dashboard

RELEVANT WORK AND RESEARCH EXPERIENCE

Office of Information And Technology Labs Assistant, The University of Texas At Dallas

08/2024 - Present

- Serve over 30,000 students and faculty by efficiently resolving IT issues (e.g., disk partitioning for virtualization, driver issues, brute-force password resets using unique tokens) and addressing security incidents (e.g., SSH server problems) across university.
- Ensuring 99.1% uptime for servers and computer labs by providing secure access, keeping all software patched and updated.
- Administering UTD's proprietary software: ticketing system (Atlas-Jira), print software (Pharos), and database system (Sailpoint).

Undergraduate Researcher, The University of Texas At Dallas

08/2024 - Present

- Conducted advanced research in AI-driven malware detection, leveraging entropy analysis and active learning to outperform industry benchmarks like VirusTotal across 70,000+ object files
- Collaborated with international PhD researchers to engineer scalable LLM pipelines and deploy high-accuracy threat detection systems, contributing to publication - ready results and TRC-backed model training

Programming Intern, Royal Technosoft Pvt Ltd

11/2019 - 07/2021

- Taught programming concepts to over 500 college freshmen as a high school sophomore, creating engaging projects like a graphic game in C++ and a dinosaur-themed game on Microsoft HoloLens using Unity3D.
- Featured in local media, including the Ahmedabad Mirror (readership of over 5 million) and VTV Gujarati news (viewership of over 3 million), as the youngest professor in my city, highlighting my contributions to tech education.
- Designed and managed the entire curriculum, including lesson planning, scheduling, assessments, and presentations, utilizing tools such as Microsoft 365 (all applications), Google Suite, Cengage, Zoom, and Canva to ensure a comprehensive learning experience.
- Expanded the program to a virtual format during the pandemic, reaching over 800 international students from countries including the UK, USA, Taiwan, and UAE, fostering a global learning community.

Web Designer and Deployment (Contract Based), Dallas TX

11/2019 - Present

- [ftth24x7.com](#) - Developed a telecom website with user-centered design, implementing data-driven UX improvements like dynamic content tailored to browsing patterns, A/B testing for optimal navigation styles, emphasize key features. Net **23.5%** improvement in user retention.
- [tranquilflow.org](#) - Built a yoga platform leveraging Convolutional Neural Networks (CNNs) for injury detection through image analysis (which also leverages Gemini - Google), K-means clustering to categorize user types based on preferences, and Collaborative Filtering for personalized class recommendations, boosting accessibility and user engagement by **17%**.
- [aiaautd.org](#) - Developed an education website (over 400 active members). Implemented features: progressive disclosure, dynamic content to highlight key events and resources, which increased member engagement and ease of access to study materials for users.
- **HRCR Lamination LLP** - Currently developing a secure, contract-based website for a metal manufacturing company, prioritizing intuitive design, user-centered interfaces, and robust data protection. (The company's goal is to have high SEO ranking)

ADMINISTRATIVE WORK EXPERIENCE

President, Community Council, The University of Texas At Dallas

09/2024 - Present

- Manage a budget and **grants of \$150,000**, lead council meetings to support campus-wide programs and events.
- Preside over the Executive Board, guiding strategic initiatives and data driven decisions for a community of over **4,500 students**.

Facility Management Student Assistant, University of Texas At Dallas

03/2024 - 08/2024

- Assisted in administrative tasks to ensure compliance with facility management protocols.
- Coordinated and managed facility operations with a focus on maintaining secure access and safety standards

ADDITIONAL CONTRIBUTIONS(Cyber Security)

11/2019 - Present

- **Conducted Penetration Testing on Hindenburg Research:** Performed a thorough penetration test on HindenburgResearch.com and identified security vulnerabilities within the admin portal. Reported findings to Nathan Anderson, Founder of firm
- **National Security Agency - Codebreaker Challenge, Part 3** (Ongoing): Engaging in advanced cybersecurity problem-solving, including cryptography, reverse engineering, and network forensics (The tasks are usually encoded in a binary hex object file)
- Program Analyst at NASA L/SPACE - Estimated and minimized costs for a \$420 million lunar landing hypothesis, leveraging data visualization with **Tableau**. Simulated visuals based on insights extracted from research papers through a machine learning model