

Dhivyesh Prithiviraj

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EDUCATION

University of Texas at Dallas

Dallas, TX

Bachelor of Science in Computer Engineering

Graduating May 2027

- Related Coursework: Digital Systems, Introduction to Circuits, Computer Science 1, Linear Algebra, Discrete Math, Object-Oriented Programming, Computer Science II, Digital Circuits, Probability Theory & Statistics

EXPERIENCE

Software Engineering Intern / Project Manager

June 2025 – August 2025

NRVE

Dallas, TX

- Built a personalized education app using **React Native**, **Firebase**, and **Python**, serving 300+ beta users.
- Designed and implemented cloud infrastructure using **AWS SageMaker** for ML model deployment, **AWS Lambda** for serverless compute, and **Terraform** to automate resource provisioning, reducing deployment time by 30%.
- Established **CI/CD pipelines** with automated testing and version control using **Git**, improving release efficiency and ensuring code quality across multiple sprint cycles.

Software Development Lead

May 2025 – Present

Association for Computing Machinery – Outreach

Dallas, TX

- Developed a **full-stack event platform** using **React**, **TypeScript**, and **Firebase** that onboarded **200+ high school students**, facilitating team formation, project submissions, and event registration.
- Built a **matchmaking algorithm** with **TypeScript** and **Firebase Firestore** that accelerated team formation by **65%**, enhancing participant collaboration and project quality.
- Redesigned the website frontend with **ReactJS** and **Tailwind CSS**, improving load time by **40%**.

Machine Learning Research Assistant – Reliability and Design Automation Lab

December 2024 – May 2025

University of Texas at Dallas

Dallas, TX

- Built and tested 3+ **Physics-Informed Machine Learning** (PIML) models for battery life prediction using **Python**, **TensorFlow**, **PyTorch**, and **Scikit-learn** across 10k+ data points.
- Validated model performance using **MSE**, **MAE**, **R²**, and **MAPE**; integrated **conformal prediction** and synthetic data generation to boost prediction confidence by **20%**.
- Developed end-to-end ML pipelines for preprocessing, training, validation, and deployment, boosting research reproducibility and speed by 40%.

Technical Ambassador & AI Program Lead

October 2022 – November 2023

Mark Cuban Foundation

Dallas, TX

- Built and deployed a full-stack **Computer Vision** web application using **Microsoft Azure** to detect calorie content in food images; integrated **real-time image processing** and hosted it on a public-facing website.
- Mentored over **1,500 students** across nationwide AI bootcamps; collaborated with 15 ambassadors to co-develop technical curricula and lead hands-on ML sessions.
- Designed data-driven outreach strategies and interactive content, increasing program engagement by **20%** across diverse high school audiences.

PROJECTS

ASL to Speech Translator | *MediaPipe, TensorFlow Lite, Raspberry Pi, Python, OpenCV*

May 2025

Independent Project

Dallas, TX

- Developed a real-time ASL-to-speech translator leveraging **computer vision** and **deep learning**, deployed on **Raspberry Pi** using **optimized TensorFlow Lite** models for low-latency inference.
- Designed and trained a custom gesture recognition model utilizing **MediaPipe landmarks**, achieving **92% accuracy** on the ASL alphabet dataset.

FinSights | *React Native, FastAPI, LangChain, FAISS, Sentence Transformers, Figma*

April 2025

Hackathon Project

Dallas, TX

- Built a cross-platform **React Native** app integrating a **Retrieval-Augmented Generation (RAG)** pipeline using **LangChain**, **FAISS** vector search, and **Sentence-Transformer embeddings** for accurate querying of financial documents.
- Developed a scalable backend API with **FastAPI** following **RESTful** principles to support **efficient data processing** and retrieval.
- Designed **real-time KPI dashboards** using React Native with **modular components** and **telemetry-driven insights** to optimize user experience and performance.

SKILLS

Programming Languages: JavaScript, TypeScript, Java, HTML, CSS, Python, C++, SQL, Swift

Frameworks & Libraries: React, React Native, Next.js, Node.js, Angular, Express, MongoDB, Spring Framework, Flask, Django

DevOps & Tools: Docker, AWS, BitBucket, Github, Azure, Tableau, KAFKA, Terraform, Postman, JIRA, Openshift