# **Shantanu Shinde**

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### **EDUCATION**

University of Texas at Dallas, Richardson, TX, United States

Master of Science, Computer Science

Indian Institute of Information Technology, Nagpur, MH, India

Bachelor of Technology, Computer Science and Engineering

Expected: May 2026 GPA 3.78

June 2021

**GPA 3.75** 

Coursework: Database Design, Machine Learning, Statistical Methods for Data Science, Big Data Management and Analytics, Natural Language Processing, Design and Analysis of Algorithms, Neural Networks and Deep Learning

#### **TECHNICAL SKILLS**

Programming Languages: C++, Python, C#, Java, Javascript

Tools & Frameworks: Lang Chain, Kubernetes, Apache Spark, .NET, Azure Dev Ops, pytorch, tensorflow, Unreal Engine,

Unity3D, Springboot, git, gRPC, REACT, MySQL, MongoDB

Certifications: Deep Learning Specialization, Advanced Data Science Specialization, Reinforcement Learning

Specialization

### **WORK EXPERIENCE**

University of Texas at Dallas, Richardson, TX, US

September 2024 – Present

CS Outreach Instructor

Helping conduct and acted as instructors for coding workshops and events for school students.

# NI (National Instruments) (Emerson), Bangalore, India

January 2021 – June 2024

Software Engineering Intern, Software Engineer, Staff Software Engineer

- Built internal tools including a GPT-3 based customer support chatbot and a Yammer similar post detector using BERT, Power Automate, and Azure services.
- Contributed to gRPC API and web service development for NI hardware tools using Python, C++, and .NET Core.
- Implemented Hardware Licensing Activation API using Java, Springboot, Kubernetes, and Azure Pipelines.
- Modernized NI Volume License Manager by migrating to encrypted SQLite from SQL CE, using .NET.

### International Institute of Information Technology, Hyderabad, India

May 2019 – August 2019

Summer Intern

• Developed interactive 3D simulation and computer vision web applications using JavaScript, Python, OpenCV, and Flask.

### **ACADEMIC & PERSONAL PROJECTS**

**CourseCOMET – Course & Professor related QnA bot**, University of Texas at Dallas

January 2025 – May 2025

Tools Used: Python, langgraph, MySQL, REACT, NodeJS, Flask

- Fetched data using the UTD Trends APIs into csv and preprocessed it.
- Data engineered schema for the SQL database and converted the CSVs into MySQL tables.
- Used LangGraph and GPT-4 with prompt engineering and database schema to convert text into SQL queries.
- Converted SQL results into natural language answers to the questions using GPT-4

## **Sign-opsis – Voice to ASL converter**, HackAI 2025, University of Texas at Dallas

April 2025

Tools Used: Python, langgraph, Google MediaPipe, REACT, NodeJS, OpenCV, spacy, flask

- Used ASLCitizens dataset and Google MediaPipe to get coordinates for ASL signs and gestures.
- Converted speech to text using OpenAI Whisper and then text to ASL gloss tokens using spacy.
- Rendered 3d model of ASL using PyVista and generated animation video using OpenCV and Moviepy.
- Created frontend using React to accept audio file and to play the generated animation.