

# DARSHAN BABU SHRESTHA

682-808-1166    ✉ db6231@mavs.uta.edu    🌐 darshan-portfolio-vtli.onrender.com

## Education

### University of Texas at Arlington

*Bachelor in Computer Science*

CGPA: 4.0

**Current – May 2027**

*Arlington, TX*

### Ullens IB World School

*International Baccalaureate Diploma Program*

**Aug. 2020 – May 2022**

*Lalitpur, Nepal*

## Technical Skills

**Languages:** Python, Java, C, JavaScript, HTML/CSS, SQL

**Frameworks:** FastAPI, React, Vite, Git, Docker, Google Cloud, NetBeans, VS Code

**Libraries:** NumPy, Pandas, Matplotlib, scikit-learn, OpenCV

**Concepts:** Object-Oriented Programming, Artificial Intelligence, API Development, Debugging, Full-Stack Web Development, Data Analysis

**Soft Skills:** Team Collaboration, Communication, Problem Solving, Mathematics

## Internship

### Web Developer Intern – TLT (Tomorrow's Leaders Today)

**May 2025 – Current**

*Building AI Educational Tools*

*Remote*

- Working on AI-driven educational platform using FastAPI, Gemini API, and modern frontend tools
- Collaborating with mentors to enhance accessibility of STEM learning through automation and innovation

### AI4ALL Ignite Fellow

**May 2025 – Aug 2025**

*AI Fellowship Program for Social Good*

*Remote*

- Selected as an AI4ALL Ignite Fellow to develop responsible AI applications for real-world impact
- Worked on inclusive AI systems and received mentorship from industry experts in AI ethics and innovation

## Projects

### GeminiEye - AI Navigation for Visually Impaired People — Python, FastAPI, Google TTS, OpenCV, Gemini API

**March 2025**

- Hack Day UTA Winner 2025 — Best Use of Gemini API
- Built a real-time AI assistant that uses voice, vision, and text to aid navigation for the visually impaired
- Integrated Google Gemini API, Google TTS, and OpenCV for intelligent voice feedback

### AI-Powered Slide-to-Lecture Audio System — Python, FastAPI, React, Google TTS, Gemini API

**Feb 2025**

- Built software to convert PDF/PPT slides into lecture videos with AI narration, AI Professor Chat-Bot, and AI Quiz Section
- Implemented backend logic in FastAPI to extract and process text from uploaded files
- Created frontend in React with dynamic PDF viewer, audio playback, and chatbot integration
- Used Google TTS for natural-sounding audio generation and synchronized it with slide visuals

### AI-Powered Recipe Generator — Python, FastAPI, React, Google TTS, Gemini API

**Feb 2025**

- Built software to scan Fridge and generate Recipe with steps to make the Recipe that can be made from the items inside the fridge.
- Implemented backend logic in FastAPI to extract and process picture
- Created frontend in React to show list of recipe including steps to make them

### Stock Management System — SQL, Java, NetBeans

**Nov 2022**

- Developed inventory system for tracking stock levels and transactions with a GUI interface
- Developed full secure Login and Sign-up page
- Developed a Data-base to store all the data

### IBDP Grading Simulator (2D Game) — Python

**Oct 2022**

- Designed a game simulating the IBDP grading system where users earn up to 45 points by catching falling subjects

### **Bingo Game — C**

**Oct 2024**

- Implemented interactive Bingo game with number generation and win-check logic

### **QuizAI - AI-Powered Quiz Generator — Python, FastAPI, Gemini API**

**April 2025**

- Created a system to extract text from lecture slides and generate intelligent quizzes automatically using Gemini API
- Built backend with FastAPI and integrated Gemini Flash for contextual question generation

## **Accomplishments**

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- Won Best Use of Gemini API at Hack Day UTA 2025 for building GeminEye, an AI-powered navigation system for the visually impaired
- Maintained a 4.0 GPA while balancing academic, research, and personal development projects
- Earned 6+ professional certifications including: Google Crash Course on Python, IBM Python for Data Science, UC Davis SQL for Data Science, Debugging C Code, Git with VS Code, and Python Data Structures by the University of Michigan

## **Extracurricular**

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- Hack Day 2025 Winner – Best Use of Gemini API
- inSTEM @ UTA – Active Member
- Phi Theta Kappa – Active Member