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Education

The University of Texas at Dallas **AUG 2023 – DEC 2025**

Bachelor of Science in Computer Science *Richardson, TX*

Relevant Coursework

- Data Structures
- Number Theory
- Software Engineering
- UNIX Programming
- Computer Architecture
- Computer Science I/II
- Programming Languages

Experience

The University of Texas at Dallas **AUG 2023 – PRESENT**

Undergraduate Research Assistant *Richardson, TX*

- Engineered effective LLM prompts for novelty detection in videos and assessed the zero-shot performance of GPT-4V and LLaVa.
- Implemented semantic audio-visualization segmentation visualization scripts using Python.
- Contributed to the AV-ASD dataset, currently the largest dataset for autism behavioral screening featuring 928 video clips across 10 categories.
- Worked on developing the best performing AI models using multimodal fusion (audio, visual, and speech recognition).
- Leveraged computer vision tools (e.g., CVAT), familiarity with BASH, and Python libraries (e.g., scikit-learn; matplotlib; cv; numpy; xml.etree.ElementTree).
- Developing one of the hardest audiovisual sound-source datasets to exist in order to assess the performance of current audiovisual segmentation models (e.g., AVSBench) by assessing three categories of objects as well as training the models on genuine, not synthetic, audio.

Independent **AUG 2023 – PRESENT**

Tutor *Online*

- Tutored 300+ students across nine courses to bolster learning outcomes. Contributed nearly 150 hours tutoring students on a 1-1, group, asynchronous, and in-person basis.
- Organized formal exam reviews for Discrete Maths I/II, CS 1436, CS 1337, CS 2336, CS 2340, PHYS 2325, and MATH 2413/14.

Nerveli **MAY 2023 – AUG 2023**

Software Engineer Intern *Dallas, TX*

- Developed three-dimensional, rotation-capable anatomical models in augmented reality spaces for a mobile application.
- Implemented using Unity, Godot, and C-sharp to construct models and rig them to be rotation-capable.

Projects

Network Simulator | *Java* **2024**

- Developed a network simulator to simulate single-hop network traffic between nodes in a star topology.
- Computed the round-trip time from when a ping requests sent and received.
- Implemented future events in the form of a linked-list as well as a custom Exception class.

Corporate Local Social **2023 – PRESENT**

- Developed an active online presence across two social platforms to promote direct customer-to-product engagement.
- Oversaw compliance with federal and state privacy regulations as well as with Walmart Social Media Best-Practices guidelines.
- Placed home store at first place in the market, in the top 40% in the region, and top 60% in the nation.

Technical Skills

Languages: Python, Java, C++, HTML/CSS, BASH
Developer Tools: VS Code, IntelliJ
Technologies/Frameworks: GitHub