William T. Doan

w.doan@utdallas.edu | 469-873-0877 | https://wtd-1.github.io/web/ | www.linkedin.com/in/wt3

EDUCATION

The University of Texas at Dallas — Richardson, Texas
Bachelor of Science in Computer Science — GPA: 3.65/4.00 — Fall 2023 – Fall 2025

- University Honors / Texas Top 10% Scholarship
- Relevant Coursework: Data Structures and Algorithms, Software Engineering, UNIX Programming

TECHNICAL SKILLS

Languages: C/C++/C#, BASH, Java, Python, HTML/CSS
Developer Tools: GitHub/Git, VSCode, IntelliJ, Anaconda, Jupyter Notebook, Docker, Unity, Godot
Frameworks and Libraries: NumPy, scikit-learn, matplotlib, OpenCV, PyTorch, pandas

WORK EXPERIENCE

The University of Texas at Dallas — Richardson, Texas
Lead Laboratory Teaching Assistant, Department of Computer Science — SEP 2024 – PRESENT

- Assisted professor leading two classes of 131 students total.
- Led lab sections independent of the professor—all preparations, presentations, grades, and office hours were separate.

The University of Texas at Dallas — Richardson, Texas
Undergraduate Researcher, The Hsu Lab — AUG 2024 – PRESENT

- Received $2,250 from the National Science Foundation to pursue research on design and implementation of visual segmentation models for applications in physics, chemistry, and material science.

The University of Texas at Dallas — Richardson, Texas
Undergraduate Researcher, The Gibney Lab — AUG 2024 – PRESENT

- Spearheading research in compression and representation of string algorithms.

The University of Texas at Dallas — Richardson, Texas
Undergraduate Researcher, The Computer Vision and Multimodal Computing Lab — AUG 2023 – AUG 2024

- Engineered effective LLM prompts for novelty detection in videos and assessed the zero-shot performance of GPT-4V and LLaVa.
- Contributed to the AV-ASD dataset, currently the largest dataset for autism behavioral screening featuring 928 video clips across 10 categories, lead to publication in IEEE.
- Received $4,500 grant to create 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. Led to research poster award.

Nerveli — Richardson, Texas
Software Developer Intern — MAY 2023 – AUG 2023

- 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 in 360-degrees.

Independent — Online
Instructor — MAY 2023 – AUG 2023

- Taught 300+ students across nine courses to bolster learning outcomes. Contributed nearly 460 hours. on a 1-1, group, asynchronous, and in-person basis.
- Organized formal exam reviews for Discrete Maths I/II, Programming Fundamentals, CS I/II, Computer Architecture, Mechanical and Electromagnetic Physics, Calculus I/II, Linear Algebra, Foundations of American Government, and Principles of Macroeconomics.

PROJECT WORK

Network Simulator — SPRING 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 — SUMMER 2023 – FALL 2024

- Developed an active online presence across five social platforms to promote direct customer-to-product engagement.
- Placed home store at first place in the market, in the top 40% in the region, and top 60% in the nation.

ACTIVITIES

Association for Computing Machinery, Member — FALL 2024 – PRESENT
Institute of Electrical and Electronics Engineers, Member — FALL 2024 – PRESENT