

Md Tahmid Wasif

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EDUCATION

The University of Texas at Arlington

Honors Bachelor of Science in Computer Science

Expected Graduation: May 2028

GPA: 4.0/4.0

TECHNICAL SKILLS

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

Tools & Frameworks: Unity, ROS 2, YOLOv8, Git/GitHub, Spring Boot, React, Flask, Node.js, WebSockets, Maven, JavaFX

Platforms & Databases: Meta Quest 3, Supabase, AWS (EC2, RDS, S3, Lambda), MySQL, PostgreSQL

WORK EXPERIENCE

Research Assistant – VR Development | University of Texas at Arlington

Jun 2026 – Present

- Build **Unity** and **C#** features for a federally funded VR police de-escalation training project, including locomotion, menus, physical interactions, lighting, and custom VR mechanics for Meta Quest 3 deployments.
- Prototype **multiplayer** training functionality for multiple officers within a shared scene; assess Mirror networking to support privacy-sensitive project data and coordinated simulations.
- Develop and synchronize multiplayer animations with Unity Netcode for GameObjects; use **Git and GitHub** to contribute alongside three undergraduates and two PhD students through iterative planning and deliverables.

Research Assistant | UTA Honors College Undergraduate Research Fellowship

Jun 2026 – Present

- Extend a **mobile-robot teleoperation** study to outdoor and disaster-simulation environments, evaluating task time, target accuracy, workload (NASA-TLX), and situation awareness (SART) across monoscopic, stereoscopic VR, and co-located viewing.
- Develop a **Python and ROS 2** control pipeline that reads controller input on a lab PC and transmits commands to the NUC-mounted robotic arm system; collaborate with a PhD researcher on integration and testing.
- Configured NetBird connectivity for an OMRON LD-90, enabling secure remote access from MobilePlanner without requiring the operator PC and robot to share a local network.

RELEVANT PROJECTS

RoboMaster Enemy Detection System | Python, Ultralytics YOLOv8n

Dec 2025 – May 2026

- Built a computer-vision pipeline from RoboMaster tournament footage using **Python**: extracted frames, manually annotated enemy robots and pressure plates, and trained a YOLOv8n object-detection model.
- Selected the lightweight YOLOv8n architecture to support real-time, edge-ready inference for competitive robot hardware; prepared the pipeline for expanded footage and edge-case data.

Project Leader – Real-Time Social Media Platform | HTML, Java, WebSockets

Feb 2026 – May 2026

- Architected an event-driven client-server system using **Java**, **HTML**, and native **WebSockets**.
- Led a team of 8 through a four-iteration software development lifecycle, managing **GitHub** issue tracking, task delegation, and merge validation.
- Designed UI mockups, context diagrams, and structured requirements documentation; led deployment testing and resolved integration failures before iteration deadlines.

Algorithm Visualizer | Java, JavaFX, MVC Architecture, Git

Aug 2025 – Dec 2025

- Developed an interactive algorithm visualization tool implementing sorting algorithms (Bubble, Insertion, Merge Sort), graph traversals (BFS and DFS), and dynamic data-structure rendering using **JavaFX**.
- Engineered reusable classes for nodes, edges, adjacency lists, and graph models, and implemented real-time visualization of algorithm steps with adjustable speeds and user-controlled inputs.
- Managed project version control with **GitHub**; contributed 40+ commits, collaborating with teammates on feature branches, code reviews, and merge conflict resolution.

CompanionAI | HackUTA 7

Oct 2025

- Built a full-stack, voice-controlled robot pet using **React.js**, **Vite**, and **Flask (Python)**, integrating Gemini 2.5 Flash for audio transcription and intelligent command interpretation.
- Designed and implemented a Supabase PostgreSQL database with **RESTful API** integration for real-time command polling, enabling seamless communication between the web interface and Raspberry Pi hardware.
- Engineered 10+ reusable **React.js** components for microphone interactions, improving UI consistency and maintainability across a three-person team.