

Md Tahmid Wasif

(817) 819-7107 | t.wasif2710@gmail.com | linkedin.com/in/mdtahmidwasif | github.com/tahmidWasif | mdtahmidwasif.dev

EDUCATION

The University of Texas at Arlington

Arlington, TX

Honors Bachelor of Science in Computer Science; GPA: 4.0/4.0

Expected May 2028

- **Relevant Coursework:** Data Structures and Algorithms, Object-Oriented Programming, Fundamentals of Software Engineering, Operating Systems

TECHNICAL SKILLS

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

Frameworks & Technologies: Spring Boot, React, Flask, Node.js, Express, ROS 2, Unity, WebSockets, JUnit 5, Mockito, YOLOv8, OpenAI Whisper

Tools & Platforms: Git, GitHub, Linux, AWS EC2, PostgreSQL, MySQL, MongoDB, Supabase, Maven, JavaFX, Ollama

EXPERIENCE

Research Assistant – VR Development

Jun 2026 – Present

The University of Texas at Arlington

Arlington, TX

- Develop Unity and C# systems for a federally funded VR training platform and prototype synchronized multi-user interactions with Mirror and Unity Netcode for GameObjects.
- Integrate a local conversational-AI pipeline using OpenAI Whisper, an Ollama-hosted Gemma 4 model with approximately 26 billion parameters, and Supertonic while keeping sensitive data off external cloud inference.
- Contribute to a modular architecture for independently replaceable speech, language, voice, and scenario components; collaborate through Git and GitHub with three undergraduate researchers and two PhD students.

Research Assistant

Jun 2026 – Present

UTA Honors College Undergraduate Research Fellowship

Arlington, TX

- Designed a cross-platform Python teleoperation bridge that streams DualShock 4 state over NetBird and UDP from Windows to Ubuntu and publishes ROS 2 Joy messages at 50 Hz for an Interbotix VX300S robotic arm.
- Built an HMAC-SHA256-authenticated protocol with timestamps, sequence numbers, session IDs, replay and stale-packet rejection, dead-man control, and a 350 ms neutral timeout; wrote tests for packet validation, controller translation, and safe sender restarts.

PROJECTS

Algorithm Visualizer | *Java 21, JavaFX, Maven, GitHub*

Aug 2025 – Dec 2025

- Implemented Bubble, Selection, Insertion, and Merge Sort plus BFS, DFS, and Dijkstra using adjacency lists, queues, recursion, and priority-queue edge relaxation.
- Built responsive, step-by-step JavaFX animations with background threads, Timeline and KeyFrame sequencing, Platform.runLater, and CountdownLatch; contributed more than 40 commits across feature branches.

RoboMaster Enemy Detection System | *Python, C++, YOLOv8n*

Dec 2025 – May 2026

- Built a computer-vision pipeline by extracting and annotating tournament footage and training a lightweight YOLOv8n model for real-time, edge-ready object detection.
- Wrote C++ targeting logic that converted pixel offsets between the aiming reticle and detected robots into turret yaw and pitch commands.

Real-Time Social Media Platform | *Project Lead; Java, WebSockets*

Feb 2026 – May 2026

- Architected an event-driven client-server application with Java and native WebSockets; led eight developers through four iterations using GitHub issues, code integration, and merge validation.
- Directed deployment testing and resolved cross-component integration failures before iteration deadlines.

ToDo-Rails | *Java 21, Spring Boot, Spring Security, Thymeleaf, MySQL*

Jul 2025

- Built a layered Spring Boot application with Thymeleaf and MySQL, implementing task CRUD plus due-today, pending, completed, and total dashboard views.
- Added form-based login with BCrypt password hashing, Jakarta validation, JPA repositories, and four Mockito tests covering creation, duplicate rejection, updates, and deletion.