Mason Thomas

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EDUCATION

University of Texas at Dallas — **May 2026**

Bachelor of Science in Computer Science — *Richardson, TX*

- Coursework: Data Structures & Algorithms, Systems Programming in Unix, Software Engineering, Programming Language Paradigms

TECHNICAL SKILLS

- Languages : C++, Java, TypeScript, Python, JavaScript, Node, Batch Scripting, Swift, HTML, CSS
- Frameworks and Tools : Git, OpenCV, MongoDB, React, VSCode, IntelliJ, Xcode, Tensorflow

PROJECTS

Roomie: Hackathon Project, *HackUTD 2nd Place Overall Winner, Best Hardware Winner* — **Oct. 2023**

- Developed a full stack solution to assist students by using data provided by university systems, display empty and unused classrooms across a college campus and allow students to reserve the rooms
- Built a Node REST API to collect university data, reservations stored in a MongoDB database, and motion data collected via wireless motion sensing to present empty rooms on campus using React.
- Integrated PIR motion sensors with ESP32's to wirelessly update room occupancy over WiFi, ensuring room availability
- Achieved 2nd Place Overall and Best Hardware out of <u>over 1200</u> participants at HackUTD X

Autonomous Drone and Ground Robot, *IEEE Robotics Competition* — **Mar. 2023**

- Developed a system in Python using OpenCV to identify objects visually and map their locations
- Trained a TensorFlow Lite model to identify objects using a Raspberry Pi
- Implemented a QR code interpreter to assist autonomous robot in navigating a course

ChessBot Controller, API, and Logic, *UTD Comet Robotics* — **Jan. 2023**

- Worked with a team to create a React web interface to connect to a Node REST API built in TypeScript to interface with an ESP32, programed in C++
- Developed a React interface that can send commands to a Node server and display status information of the 40 physical chess robots

WORK EXPERIENCE

Information Systems Intern — **May 2023 – Aug. 2023**

Brazoria County Information Systems — *Angleton, TX*

- Reduced computer deployment time <u>83%</u> by utilizing tools such as Windows System Image Manager, DISM, and Windows batch scripting
- Demonstrated excellent problem-solving skills, diagnosing problems, and implementing solutions to minimize user downtime
- Assisted in the setup and configuration of network ports, contributing to a reliable and efficient network infrastructure

Institute of Excellence in Corporate Governance — **Aug. 2022 – Present**

Student Worker — *Richardson, TX*

- Managed large volumes of user memberships using tools such as Excel and Qualtrics
- Collaborated with a team of people on a day-to-day basis to manage events with over 100 attendees

ACHIEVEMENTS AND EXTRACURRICULARS

- **Eagle Scout**, Boy Scouts of America — **May 2020**
- **Director of Marketing & Outreach**, UTD Comet Robotics — **Aug. 2023**