

Matthew Hui

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EDUCATION

The University of Texas at Dallas

Dallas, TX

Bachelor of Science in Computer Science

Expected Graduation Date: May 2026

Collegium V Scholar, Computing Honors Scholar

GPA: 3.9/4.0

- Relevant coursework: Adv. Data Structures & Algorithms, Operating Systems, Machine Learning, Database Systems, Natural Language Processing, Linear Algebra

EXPERIENCE

Incoming Software Engineer Intern

May 2025 – August 2025

Capital One

Richmond, VA

- Summer 2025

Software Engineer Intern

May 2024 – August 2024

General Motors

Detroit, MI

- Conducted development for Software-Defined-Vehicle 2.0 systems using software-in-the-loop methodology
- Wrote tests in Python for Level 4 Virtualized ECU software while validating serial data communication and automating test runners, improving script data processing efficiency by 39%
- Enhanced decision-making and operational efficiency for 10k+ employees by developing interactive visualizations and dashboard views using JIRA data, Python, and Power BI

Data Analytics & AEGIS Technical Intern

May 2023 – August 2023

BAE Systems

Mount Laurel, NJ

- Migrated AEGIS specification data from flat-file document to model-based representation using Java, SysML & natural language processing; wrote data validation plugins leading to 20% reduction in evaluation time
- Reduced document processing time by implementing image classification & OCR tool using PyTorch & OpenCV
- Active hold of Secret security clearance

Information Technology Intern

July 2021 – August 2022

Union County Vocational-Technical Schools District

Scotch Plains, NJ

- Led quality assurance, deployment, and maintenance of 150+ desktops in the school's technology domain
- Addressed hardware repair and software configuration across school-wide network for 100+ staff and 800+ students

Software Lead

September 2020 – June 2022

FIRST Robotics Team 1257

Scotch Plains, NJ

- Directed implementation & testing of state estimation and object detection algorithms in Java & OpenCV; drove and debugged robot during over 30 official competition matches
- Built [documentation website](#) to support training of over 20 new students in Java and robot programming processes

PROJECTS

Soundscape | *Python, GCP (Maps, Vertex AI), Meta AI (AudioCraft), Gemini, Flutter*

- Produced an adaptive music generation platform that leverages location and user preference data to create personalized soundscapes in real-time, enhancing outdoor engagement and promoting discovery of creative self
- **3rd Place Overall** & Best Use of Intel Developer Cloud at [LAHacks 2024](#), earning **\$24,000+** in prizes

WaterView | *React, Python, GCP (Compute Engine, VertexAI, Maps Tiles, Maps JS), MongoDB*

- Provided real-time updates and predictive analytics on water health with 99% accuracy given spatiotemporal context of outdoor events; visualized impact in dashboard and interactive augmented reality component in Blender
- Web-scraped water metrics and Boston-area event data from 11+ sources to develop rich set of 18000+ datapoints, ensuring higher-quality model training and predictions
- **1st Place** at [HackHarvard 2023](#) (Environmental Solutions Track)

SKILLS

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

Frameworks & Other: React, Node.js, Express, Tailwind, Flask, PyTorch, SysML, MongoDB, AWS, GCP

Developer Tools: Git/GitHub, VS Code, Visual Studio, PyCharm, IntelliJ, Figma

Certifications: Oracle Database Foundations, Cognizant Agile Methodology, Microsoft Office Specialist Master