

Abdullah Al Mahmud

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EDUCATION

Texas Tech University

B.S. in Computer Science, GPA: 3.93 / 4.0

Relevant Courses: Computational Thinking & Data Science, Programming Principles, Discrete Computational Structures, Data Structures & Algorithms, Object Oriented Programming, Computer Org. & Assembly Language

Lubbock, TX

Jan 2025 – Dec 2027

TECHNICAL SKILLS

Programming Languages: C, C++, Java, Python, TypeScript, JavaScript, SQL

Frameworks & Tools: OpenCV, YOLO, TensorFlow, PyTorch, Flask, FastAPI, NodeJS, React, Linux, Git, Docker, Redis, DigitalOcean, Vercel, AWS, Google Cloud, OpenAI, Twilio

Databases & Vector Stores: PostgreSQL, Firebase, MongoDB, Qdrant, Pinecone

PROFESSIONAL EXPERIENCE

Yobo AI

Software Engineer

Ontario, Canada

Nov 2023 – Dec 2024

- Architected a low-latency voice interface using Twilio, OpenAI Realtime APIs, and PyTorch VAD, achieving 99% accurate tool calls while reducing audio false positives by 25% and raising user retention by **65%**.
- Engineered an automated ETL pipeline for menus using LLM structured outputs from images, reducing manual data entry time by **85%** while increasing demo-to-trial conversion rates by 38%.
- Developed a scalable microservices architecture using Python and MongoDB that optimized query throughput, handling **10,000+ daily requests** and reducing API latency by 150ms.

LEADERSHIP EXPERIENCE

Tech Lead, **Codepath Texas Tech**

Jan 2026 – Present

- Leading workshops for TTU students where we explore AI-assisted coding and build Agentic AI projects together.


Section Leader, **Stanford CodeInPlace**

Apr 2025 – Jul 2025

- Led weekly sessions on Python, teaching core data structures & algorithms (DSA) to a group of 23 students.


PROJECTS

draw2agent | *TypeScript, Excalidraw, MCP, Puppeteer, Node.js*

 [view](#)


- Built an MCP server that overlays Excalidraw on local dev pages, enabling developers to annotate UI directly and submit visual context (screenshot + DOM + annotations) to AI coding agents, with **1,000+ users**.
- Published to the MCP Registry with 4 tools enabling real-time sketch-to-code editing in Cursor, Antigravity, and Claude Desktop - supports iPad for remote drawing and live site updates.

llmmcp | *TypeScript, Pinecone, Cloudflare Workers, Node.js*

 [view](#)

- Developed an MCP server that provides real-time, vector-indexed documentation for OpenAI, Anthropic, and Google Gemini APIs, eliminating LLM hallucinations about model capabilities and deprecated patterns.
- Architected a CI/CD pipeline with a daily scraper, Pinecone vector DB with embeddings, and Cloudflare Workers with KV caching to serve sub-second semantic search results to AI agents.

Astrobee Controller | *Java, Gradle, Tensorflow, LiteRT, ZXing, Docker*

 [view](#)

- Programmed Astrobee Robot movement using Quaternions in the International Space Station with KIBO API.
- Trained a TensorFlow model achieving **97% accuracy** detecting 8 tools, optimized to TFLite for Astrobee's Snapdragon 820 (2.15 GHz), & used ZXing Java library to decode AR codes for autonomous navigation.

HONORS & AWARDS

Champion, Tidal Hack 2025 | *Developed an app StudySync that placed us 1st among 128 teams*

2025

Champion, AMD AI PC Track, HackCU 11 | *Quantized 70B LLM to run on a small local AMD NPU*

2025

Bronze Medalist, World Robot Olympiad | *Built a self-driving robot-car running on NVIDIA Jetson*

2023

5th Crew Award, 4th KRPC by JAXA | *Programmed a robot aboard ISS to compete against 600+ teams.*

2023