

# Ammar Ahmed

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## EDUCATION

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### University of Michigan

Ann Arbor, MI

Master of Engineering in Computer Science and Engineering - 4.0/4.0 GPA

Dec 2024

- **Coursework:** Compilers, Natural Language Processing

Bachelor of Engineering in Computer Science, Summa Cum Laude - 3.9/4.0 GPA

Dec 2023

- **Coursework:** Operating Systems, Web Systems, Computer Networks, Human-Centered Software, Programming Paradigms, Data Structures & Algorithms, Computer Organization, Foundations of CS, Robotics Mechanisms

## WORK EXPERIENCE

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### NVIDIA

Santa Clara, CA

DevOps Engineer Intern, Robotics

Aug 2023 - Present

- Designed and implemented end-to-end CI/CD monitoring system using python that 70+ engineers now regularly use
- Established Kibana dashboards and Elasticsearch watchers to track 3,000+ Jenkins builds and update in real time
- Created AI Bot to categorize error logs, extract error messages, and provide potential solutions for 98% of build errors

### University of Michigan - College of Engineering

Ann Arbor, MI

Data Structures & Algorithms (EECS 281) Teaching Assistant

Aug 2023 - Present

- Lead weekly laboratory with 40+ students in discussing and applying various data structures and algorithms in C++
- Develop exam questions, coding projects, and host weekly office hours for a course with over 1100 students

Robotics Mechanisms (ROB 103) Teaching Assistant

Jan 2022 - May 2022

### GE Healthcare

Milwaukee, WI

Software Engineer Intern

May 2023 - Aug 2023

- Transformed 2 containerized services into Kubernetes pods using YAML deployment files and Go templates
- Crafted and deployed internal k3s network analysis tool with support for over 60 commands using Helm Charts

Software Engineer Intern

Sep 2022 - Apr 2023

- Spearheaded initiative to dockerize all Data Distribution Service (DDS) tools within GEHC through automated Gradle builds & VNC ports, providing instant access to containers that previously took 1-2 hours of set-up

Software Engineer Intern

May 2022 - Aug 2022

- Automated deployment & commissioning of 50+ patient monitors in CI/CD lab using Java, Shell Scripting, & Jenkins, transforming a 16-hour manual task into a 2-hour computerized build (87.5% time saved)

### Code The Way Inc.

Brookfield, WI

Team Lead

May 2021 - Apr 2022

- Led team of 4 developers in creating full-stack .NET Core web application for local non-profit (750+ commits)

Full Stack Developer

May 2020 - Apr 2021

- Utilized HTML, CSS, JavaScript, C#, and SQL in constructing a full-stack .NET application for a local soup kitchen

## PROJECTS

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- **Multiprocessor kernel-level thread library** with support for mutex, cv, yield, join, and interrupt handlers (C/C++20)
- **Multithreaded network file server** with read, write, create, and delete operations for files + directories (C/C++20, Boost)
- **Search Engine** that uses adjustable Pagerank weight and TF-IDF to return relevant Wikipedia articles (Python, JS)
- **Microsoft Azure App** that uses MS AI for Earth to identify animals & automatically tweet species with 90% acc. (Python)
- **Visual Assistance Robot:** Handheld gadget that scans path and alerts user of obstacles (C/C++, Arduino, Lidar)

## SKILLS & AWARDS

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**Languages/Frameworks:** C++, C, Python, Flask, React.JS, OCaml, Scheme, SQL, LaTeX, HTML, Bootstrap, Tailwind CSS

**Tools/Technologies:** Linux, Git, Docker, Kubernetes, Helm, Wireshark, LLVM, Azure, GDB, VSCode, Gradle, Jenkins

**Talents/Interests:** Fluent English, Fluent Arabic, Limited German, Cooking, Trip Planning, Remodeling

**Awards:** Dean's Honor List, University Honors, William J. Branstrom Freshman Prize (Top 5% of Freshman Class),

WayUp Top 100 Intern 2022, WayUp Top 100 Intern 2023