

Aamir Mohsin

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EDUCATION

The University of Texas at Austin

B.S. Electrical and Computer Engineering | Engineering Honors Program

Overall GPA: 4.00/4.00

Austin, TX

Aug 2021 – May 2025

EXPERIENCE

Capital One

Software Engineer Intern

McLean, VA

Jun 2024 – Aug 2024

- Created a full-stack app using React, TypeScript, and Fastify to automate and centralize credit card fraud referrals
- Built an AWS Lambda function to pipeline referral data to a Kafka topic, expediting 38,000+ fraud cases yearly
- Wrote comprehensive unit and end-to-end tests for the application using Vitest, achieving 96% code coverage

University of Texas Department of ECE

Algorithms Teaching Assistant

Austin, TX

Jan 2024 – May 2024

- Instructed 120+ students in advanced algorithm topics such as dynamic programming by hosting office hours
- Graded weekly homework assignments, programming labs, and exams while providing feedback to students

Walmart Global Tech

Software Engineer Intern

Dallas, TX

May 2023 – Aug 2023

- Built a REST API using Flask to transmit images from robotic inventory scanners to Sam's Club mobile apps
- Reduced inventory location errors by 47% in 600+ stores by providing updated product locations to associates
- Deployed the API on Azure App Service by leveraging Terraform configuration files to provision resources

Texas Computational Materials Lab

Undergraduate Research Assistant

Austin, TX

Jan 2022 – Dec 2022

- Created a Python script to simulate 5,000+ fuel cell reactions to determine potential battery catalysts
- Preprocessed a dataset of 13,000+ nanoparticles for a ML model by removing redundant and incorrect entries
- Designed an algorithm to confirm the convergence of nanoparticle reactions, achieving an 87% accuracy rate

PROJECTS

Jump Finance | React, FastAPI, MySQL, Google Cloud Platform

Sep 2023 – May 2024

- Worked as a contracted developer to build a web portal that manages payment statuses of 450+ university students
- Implemented user authentication and authorization using OAuth with JWT to validate access to API requests
- Automated 600+ monthly invoice due date reminder messages using the WhatsApp API and GCP Cloud Functions

Meals on Wheels Central Texas | React, Flask, Salesforce

Jan 2023 – May 2023

- Worked as a contracted developer to build a web application for use by 8,000+ meal delivery volunteers
- Built a REST API using Flask to automate delivery route creation, helping volunteers deliver 3,000+ daily meals
- Created login and route display UI pages using React and React Router to control page transitions

LEADERSHIP AND ACTIVITIES

Texas Convergent

Technical Lead

Austin, TX

Sep 2022 – Present

- Leading a team of 5 engineers on semester-long startup projects by managing deliverables and liaising with founders
- Creating a web development curriculum for 150+ students, covering frontend frameworks, backend, and databases

ADDITIONAL INFORMATION

Languages: Python, Java, C/C++, JavaScript, TypeScript, HTML/CSS, Assembly

Frameworks/Technologies: Flask, FastAPI, Fastify, SQL/NoSQL DBs, Azure, AWS, Git, Docker, Kafka, React

Relevant Coursework: Data Structures, Algorithms, Parallel Computing, Compilers, Operating Systems (IP)

Interests: Backpacking, Running, Exploring New Restaurants, Fantasy Football, Speech and Debate, LeBron James