

Uzma Hamid

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EDUCATION

Texas A &M University

Bachelor of Science in Computer Science

GPA: 4.0

College Station, TX

Dec 2025

Relevant Coursework: Object-Oriented Programming, Data Structures & Algorithms, Database Design, Software Engineering, Computer Architect, Artificial Intelligence, Machine Learning, Cloud Computing, Statistics, Linear Algebra, Cyber Security Risk, Computer & Network Security

EXPERIENCE

AI/ML Research Internship

Stanford University LINXS

Jun 2024 – Aug 2024

Stanford, CA

- Conducted research to improve domain generalization in machine learning models.
- Analyzed inverse linear relationships between in-domain and out-of-domain accuracies. Conducted experiments with various classifiers across 10+ diverse tableshift datasets to validate.
- Enhanced domain generalization by creating benchmarks with minimal or negative correlation between in-domain and out-of-domain accuracies, improving reliability by 15%

Student Software Engineer

Texas A&M University - College of Nursing

Aug 2024 – Present

College Station, TX

- Integrating RAG using OliviaHealth as knowledge base, enhancing iCHILD's response accuracy and latency
- Implementing vectorization pipelines, vector search algorithms, leveraging NLP and LLMs to deliver health info.

Computer Vision Research Assistant

Drake University

Jan 2022 – Jan 2023

Des Moines, IA

- Led research on advanced computer vision techniques for object detection and image analysis.
- Developed a Python-based annotation tool incorporating algorithms for contour detection, polygon approximation, and image manipulation.
- Achieved an 85% success rate in object detection tasks and improved annotation efficiency by 30%. Presented findings at the Consortium for Computing Science Conference, showcasing significant contributions to the field

Computer Technician

Texas A&M University

Jan 2023 – Present

College Station, TX

- Responsible for maintaining and troubleshooting campus computer systems
- Maintain upkeep of computer, deliver on-call support, effectively responding to technical issues

Project Manager

Aggie Coding Club

Aug. 2023 – Nov. 2023

College Station, TX

- Led a team of **10+** students in building a sophisticated book recommendation generator **web application**.
- Trained students on utilizing the Django framework for backend and implementing frontend design principles.
- Coordinated project **timelines**, tasks, and resources to ensure timely delivery of the web application.

Teaching Assistant

Texas A&M University

Jan 2024 – May 2024

College Station, TX

- Assisted in delivering high-quality instruction in C++ programming. Mentored 300+ students through interactive lab sessions and provided hands-on support with programming assignments.
- Achieved a 90% passing rate among students, with a 30% increase in average assignment scores, reflecting a significant improvement in student understanding and performance.

Undergraduate Researcher

Drake University

Sep 2021 – Dec 2022

Des Moines, IA

- Conducted research on spacecraft configurations and magnetic fields for radiation protection
- Developed and optimized a Monte Carlo simulation method to test various magnetic field configurations. Refined simulation techniques to reduce processing time and explore multiple scenarios efficiently
- Reduced simulation time by 40% and improved the accuracy of magnetic field configuration predictions. Enhanced understanding of radiation shielding requirements, leading to more effective spacecraft design recommendations.

PROJECTS

TeamUp - Cleo | [GitHub](#) | *Ruby on Rails, React, CI/CD, SimpleCov, Rubocop*

- Built an application and implemented a recommendation algorithm, reducing course selection time by 40% and improving on-time graduation rates by 25% through optimized degree planning based on user preferences
- Developed a scalable backend serving 1,000+ users with 99.9% uptime, ensuring FERPA compliance and secure authentication

eVe AI Support | [GitHub](#) | *React, TypeScript, GeminiAPI*

- Engineered real-time message processing, integrated Google Generative AI for dynamic responses
- Created an intuitive user interface with optimized image handling, ensuring a seamless experience for managing and interacting with AI-generated content

Revs | [GitHub](#) | *Python, Django, Jira, PostgreSQL, JavaScript, HTML/CSS, Agile, Figma*

- Developed a customized point-of-sale application for Rev's Grill using Django
- Incorporating client-requested features like OAuth authentication, Open Weather API and manager reports, to enhance order placement and operational efficiency

Find Earth | [GitHub](#) | *Java, Node.js, OpenAI API, News API, Git*

- Developed a web application during HackHarvard, providing one-click access to climate change news by location
- Implemented an AI-powered news feature using OpenAI-API and News APIs to enhance content relevance

Chip Visualization | [GitHub](#) | *Python, PIL, Numpy, Glob, Scipy*

- Developed a Python program to identify image similarity identification
- Utilized deep neural networking and the **Euclidean distance matrix** to achieve an accuracy rate above **90%**
- Employed **VGG** and **ResNet50** datasets to increase the accuracy of image similarity calculations

Tabletop Segmentation | [GitHub](#) | *Python, PIL, Numpy, Matplotlib, Tensorflow*

- Led research in image segmentation of table-top objects using Graph Neural Networks.
- Developed and implemented a deep learning-based object grasping model, resulting in a 30% improvement in successful grasps by robotic systems.
- Successfully tested and trained OCID and OSD datasets, enhancing model robustness and contributing to a reduction in false positives during object recognition

LEADERSHIP

Web Developer - CodePath

Donald V Adams Leadership Institute

NASA Space Grant

APSTEM Technology Ambassador

International Student Association

National Science Congress

TECHNICAL SKILLS

Languages: Python, Java, C++, SQL (PostgreSQL, MySQL), NoSQL (MongoDB, Cassandra), JavaScript, TypeScript, R, SAS, HTML5, CSS3, SASS

Developer Tools: VS Code, Git, GitHub, GitLab, Maven, Docker, Jupyter, Redis, AWS, GCP, Azure

Frameworks/Libraries: React, Django, Vue.js, Ruby on Rails, PyTorch, Scikit-Learn, Tensorflow, Node.js

Other Technologies: CI/CD pipelines, Webpack, Tailwind CSS, Bootstrap, Figma, Jira