

# Mustaeen Ahmed

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## EDUCATION

**University of Central Florida**  
*Bachelor of Science in Computer Science*

Orlando, FL  
Aug 2023 - May 2027

## EXPERIENCE

### Software Engineer Intern

September 2024 - Present

*Leidos*

*Orlando, FL*

- Currently working on the Simulation Development/Machine Learning team.

### Software Engineer

July 2024 - Present

*KnightHacks*

*Orlando, FL*

- Developed a multi-purpose Discord bot with several useful commands to serve a club server with 3500+ members.
- Pioneered development of several entertainment commands & webhooks, increasing server engagement by 30%.
- Wrote an algorithm which validated event data for announcements, increasing club event attendance by 40%.

### Software Engineer

June 2024 - Present

*Darden*

*Orlando, FL*

- Pioneered the development of several advanced Python applications for use in expediting and automating employee workflows, saving 400+ employee work hours per quarter and reducing quarterly employment costs by \$10000+.
- Leveraged several machine learning powered packages such as OpenCV, scikit-image, and PyTesseract for use in robust error handling, decreasing errors by 95%, and increasing application efficiency by 45%.
- Utilized packages such as Pandas, NumPy, and Matplotlib to perform efficient data engineering and develop concise data models, reducing application complexity by 50%, and application runtime by 20%.
- Developed a Java desktop application to streamline the use of our Python applications, improving employee user experience, software portability, and software maintainability by 100%.

## PROJECTS

### GuitAR | C#, C++, Unity, Meta SDK, Algorithms, Audio Classification

- 2nd place winner of the "Best Overall" category at Knight Hacks 2024, surpassing 100+ submitted projects.
- Developed a highly-interactive, educational mixed reality application for learning and practicing the guitar.
- Designed an audio classification algorithm which converts audio frequencies to binary data for note validation.
- Leveraged C# to develop songs/lessons and core application logic, and utilized Unity for 3D development.

### Insurify | Python, Next.js, React, TypeScript, PostgreSQL, Prisma, Tailwind CSS, Docker, Flask

- Built a multi-purpose insurance application which gives quotes based on a car's damage and customer data.
- Leveraged Python and the Transformers library to develop an image classification model for detecting car damage.
- Developed a machine learning model for estimating insurance quotes based on the quantified car damage data.
- Provided resources for insurance education, and built/trained a chatbot to assist customers on insurance topics.

### Naavis | Next.js, React, TypeScript, PostgreSQL, Prisma, Redis, Amazon S3, tRPC, Tailwind CSS, Vitest

- Developed a location sharing web application which allows users to track locations of group members and devices.
- Wrote an advanced authentication system with TypeScript and Lucia, allowing for third-party and regular sign-in.
- Leveraged Amazon S3 and tRPC queries to store profile pictures and images for efficient retrieval of said assets.
- Used TypeScript and React to create appealing UI components and ensure responsive design throughout.

### Naturalization Test App | TypeScript, MySQL, Node.js, Express.js, Supabase, SCSS, Docker

- Developed a quiz app that simulates the civics test given during the U.S. citizen naturalization process.
- Queried a MySQL database hosted on Supabase with Node.js and Express to access 100+ questions and answers.
- Used TypeScript and SCSS to seamlessly animate website components and build an attractive UI.
- Tested on a small group of individuals studying for the real civics test; all users from the group passed the exam.

## TECHNICAL SKILLS

**Languages:** HTML, CSS, JavaScript, TypeScript, C, C++, C#, Go, Java, Python, R, SQL

**Frameworks:** React, Next.js, Astro, Node.js, Express.js, Tailwind CSS, tRPC, Bootstrap

**Libraries:** scikit-learn, PyTorch, NumPy, Pandas, Matplotlib, Flask, Django, OpenCV

**Tools:** Git, GitHub, Jira, MySQL, PostgreSQL, AWS, Prisma, Redis, Docker, MongoDB, Jupyter Notebook, Figma

**Concepts:** Machine Learning, Full-Stack Development, Computer Vision, Cloud Computing, DevOps, Agile/Scrum