Ishfaq Mohsin

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EDUCATION

University of Central Florida — Orlando, FL
Bachelor of Science in Computer Science; Minor in Statistics — *May 2028*
- **Coursework**: Data Structures, Object-Oriented Programming, Discrete Math, Linear Algebra
- **Associations**: Knight Hacks

EXPERIENCE

Software Engineer Intern — March 2025 – Present
Center of Distributed Learning at UCF — *Orlando, FL*
- Contributed to the design and implementation of full-stack features for **UDOIT**, an accessibility application adopted by over **50 institutions worldwide**.
- Optimized the course scanning feature to find inaccessible content, improving performance and increasing speed upwards of **90%**
- Engineered an accessible and efficient file upload and replacement feature leveraging the **Canvas LMS API, PHP, and MySQL**.
- Developed a form to add or replace language in HTML content, ensuring **81%** compliance with **WCAG language accessibility standards**.
- Architected core UDOIT desktop features with **Electron, React, Node.js, and SQL**, enabling institutions to run locally and eliminating server costs by **93%**.

PROJECTS

Crimson Brawl | *GDScript, Python, Websockets*
- Won **Best Game Hack** at Knight Hacks VIII (out of **188** projects) for developing a brain-controlled character using EEG signals
- Achieved **99.4%** accuracy using decision tree based XGModels to identify EEG signals as commands
- Built a complete, playable game in **Godot** featuring interactive gameplay and win/lose conditions

Altimate | *React, Tailwind, Fast API, Google Gemini, Typescript*
- Built and launched a full-stack Chrome extension in a team of **4** engineers and designers
- Implemented an automated Web Accessibility system that follows compliance for Web Accessibility for individuals with impaired vision by **83%**
- Developed an accurate HTML Parsing architecture taking HTML from any site and sending it to **FastAPI backend**
- Utilized **Google Gemini's Text Generation** to create a dynamic architecture for analyzing and generating various **Web Accesibility** issues
- Delivered websites with **85% WCAG** accessibility compliance, enhancing ease of use, navigation, and information discovery.

Recallify | *React, Tailwind, Fast API, Google Gemini, ChromaDB*
- Developed a full-stack RAG application in a team of **2**.
- Created an active recall pipeline enabling students to study more effectively using their own notes.
- Utilized **Google Gemini's embedding function** to store documents as vector embeddings in **Chroma DB**, achieving **95%** first-query retrieval accuracy.
- Leveraged **Google Gemini's Text Generation** to create broad, context-aware questions from stored documents
- Implemented voice chat between users and the model to emulate a natural learning environment and enhance recall by **70%**.

TECHNICAL SKILLS

Languages: HTML, CSS, Javascript, Python, C, Typescript, Java, SQL, PHP, GDScript
Libraries/Frameworks: React, Node JS, Express JS, Next JS, Tailwind, Flask, Django, FastAPI, Websockets, Gemini, Electron, ChromaDB, Langchain, MongoDB, Postgress, MySQL, Drizzle, Redis
AI: Prompt Engineering, Context Engineering, Agentic Development, Agentic Workflow
Developer Tools: Windows, MacOS, Linux, Git, Docker, Ollama