

ABDUL RAHMAN HUSSAIN SIDDIQUE

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EDUCATION

University at Buffalo - The State University of New York

Jan 2025 – Ongoing

Master of Science: Computer Science

Buffalo, NY

Muffakham Jah College of Engineering and Technology (Osmania University) Nov 2020 – June 2024

Bachelor of Engineering: Information Technology - GPA - 8.11/10

Hyderabad, India

SKILLS

Languages: JavaScript, Python, Java, C, C++, SQL, NoSQL, HTML/CSS, XML, SASS

Technologies: React, AngularJS, React Native, Node.js, Express, Three.js, Git, Docker, PyTorch, Nest.js, Tailwind, GNN, Transformers

Libraries: Langchain, PyTorch Geometric, TensorFlow, RDKit, Interact.js

EXPERIENCE

Goodz

July 2024 – Dec 2024

Frontend Development Intern

Hyderabad, India

• Mobile Application Development

- * Resolved UI/UX issues in a React Native app, improving navigation bars and ensuring cross-device compatibility.
- * Integrated push notifications for Android using Firebase Cloud Messaging.
- * Diagnosed and resolved keystore signing errors for secure Android release builds.
- * Reduced APK size by optimizing resources and enabling ProGuard.

• Web Application Development

- * Led the migration of a major front-end application from legacy technology to a modern Angular framework.
- * Engineered a high-performance web component to display thousands of data records, implementing advanced features (virtualization, multi-level grouping, sorting, filtering, drag/drop, WCAG accessibility) and achieving a 90% improvement in load times over third-party libraries.
- * Developed and optimized features for an Angular-based eCommerce platform, enhancing UI consistency and user workflows.
- * Revamped dynamic banners, promotions, and infinite scrolling for smooth browsing experiences.

PROJECTS

HealthAI Connect | NLP, ML, CNN, Langchain, Python, Flask, JS

Nov 2023

- Revolutionized healthcare with cutting-edge AI, offering tailored medication suggestions, precise diagnostics including brain tumor and pneumonia detection, and seamless communication between patients and healthcare professionals through predictive algorithms, an NLP-driven chatbot, and a robust appointment system.

Clarity Planner  | Vanilla JS, Firebase, HTML5, CSS3, Interact.js

Sept 2025

- Architected a full-stack, real-time scheduling single-page application with cross-device synchronization using Google Firebase (Firestore) and a live onSnapshot listener.
- Engineered a secure, mobile-first authentication system supporting both seamless anonymous sessions and permanent accounts via Google Sign-In (OAuth 2.0).
- Built a highly interactive UI from scratch in vanilla JavaScript, featuring fluid drag-and-drop (Interact.js), dynamic event resizing, and a custom algorithm to visually resolve scheduling conflicts.
- Integrated a suite of productivity tools, including live filtering, browser desktop notifications, and theme persistence using localStorage.

GRASP  | PyTorch, Transformers, GNN, Self-Supervised Learning

2025

- Developed a cross-modal, self-supervised molecular representation model to align graph structures and SMILES representations using contrastive pre-training, addressing data scarcity in computational chemistry.
- Implemented a dual-encoder architecture (GIN and ChemBERTa) and an optimized PyTorch data pipeline to efficiently process and train on over 500k molecules from PubChem.
- Achieved strong transfer learning performance on MoleculeNet benchmarks with minimal labeled data, attaining a ROC-AUC of 0.94 on BBBP and 0.81 on Tox21.

CERTIFICATIONS

- Intro to CCR - University at Buffalo
- Web Development Bootcamp - Udemy (Angela Yu)
- React Essentials - LetsUpgrade & NSDC
- DSA Essentials Bootcamp - GDG MAD & LetsUpgrade