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Shams Abrar

Software Developer

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Portfolio —

- Data Analysis
- Machine Learning
- AI Development
- Full Stack Development

EDUCATION

Drexel University, Philadelphia, PA **Sept 2023 – Jun 2028**
BSc: Computer Science | Dean's Scholarship | GPA: 3.85

PROJECTS

StemflowAI, Philadelphia, PA **Sept 2022 – Sept 2023**

- Engineered a MERN stack application with LLAMA API, boosting learning efficiency by 400% and enhancing educational recommendations through daily YouTube video analysis.
- Converted 200+ PDFs into JSON, creating over 1,000 learning flashcards to support active recall and spaced repetition for improved learning outcomes.
- Implemented and tested 100+ user interaction scenarios, fine-tuning AI accuracy and optimizing user engagement through Agile methodologies and JIRA.
- Directed development efforts, ensuring timely delivery and effective response to user feedback, significantly improving project management and execution.

Abortion Access for Minors: Judicial Bypasses **Apr 2024 – Present**

- Developed an interactive map featuring over 30 clinic locations, significantly enhancing access to healthcare resources for minors.
- Collaborated with 10+ legal and health professionals to ensure accurate, actionable information, aiding critical decision-making for users.

EdEquity, Philadelphia, PA **Sept 2023 – Present**

- Engineered "EdEquity," an AI-driven educational platform using AWS Rekognition and OpenCV for real-time drowsiness detection, reducing user fatigue by 30
- Developed a responsive chatbot managing 200+ daily interactions, providing timely guidance and boosting user satisfaction by 25
- Implemented smart mapping and personalized resource recommendations, increasing user engagement by 40

EXPERIENCE

Vertically Integrated Research Program (The Future of Power & Energy), Drexel University **Jun 2021 – Sept 2022**

- Engineered a real-time object-detection model on Raspberry Pi using TensorFlow Lite, advancing a robotic fish's underwater detection capabilities with a 30
- Overhauled system architecture, optimizing memory use and sensor processing, which enhanced operational efficiency and reliability by 25

Sir Salimullah Medical College, Dhaka, Bangladesh **Date**

- Authored an analysis on 450+ SA cases, guiding critical timing for interventions.
- Analyzed reporting trends and managed data from 476 monthly SA incidents, influencing policy changes.

Bangladesh Atomic Energy Commission **Jan 2022 – Jan 2023**

- Published research on industrial wastewater management, synthesizing insights from 50+ articles.
- Demonstrated 10+ jute composites to 100+ university students, facilitating collaboration with industry experts.

SKILLS

Proficient: Python, Java, HTML, CSS, JavaScript
Familiar: Node.js, React, PostgreSQL, MongoDB, Flask, Express.js
Introductory: C, C, PyTorch, TensorFlow, OpenCV, Web Accessibility

PUBLICATIONS

- 2021: "Artificial Intelligence for the Diagnosis and Treatment of Diabetes Kidney Disease: a systematic review"
- 2021: "The Repercussion of SARS-CoV-2 on the Blood Glucose Level of Diabetes Patients' Prior and During the Lockdown in Bangladesh"

HONORS & ACHIEVEMENTS

2021 Nationally 5th in Bangladesh Chemistry Olympiad; High School Valedictorian
2022 National Camper in Astronomy & Astrophysics and Earth Science Olympiads