

KHANDAKAR J. SAYEEM

Software Engineer/Full Stack Developer/Computer Science

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TECHNICAL PROJECTS

Lead Programmer

The Advisor Webtool

📅 September 2023 - May 2024

- Developed a comprehensive academic planning tool using MySQL, Flask, and JavaScript, improving student-advisor interactions by 40 percent for PSU.
- Integrated Google's Dialogflow NLP to create a robust AI-driven chat system, streamlining student inquiries by reducing response times by 30 percent.

Lead Programmer

Digital Bookstore

📅 December 2023

- Optimized SQL queries to handle an 11,000-record CSV, increasing data retrieval speed by 55 percent.
- Successfully migrated backend infrastructure from local MySQL to PlanetScale, increasing scalability and user performance for a global audience.

Lead Programmer

Neural Network Trainer

📅 2024

- Developed and trained a neural network for text prediction using Python's Spacy and Keras, utilizing the novel Moby Dick for its public domain status and complex language structure.

Lead Programmer/Assistant

Sentiment Analyzer

📅 May 2023

- Created a Python-based sentiment analyzer that will determine the sentiment of text input and will give individual explanations for each word. This also utilizes the Natural Language Toolkit (NLTK) library for sentiment analysis and the tkinter library for an interactive Graphical User Interface (GUI).

Lead Programmer

Expense Tracker

📅 June 2023

- Created a program as a JavaScript Web Application that allows user to track their expenses easily.

Lead Developer/Lead Programmer

Image Recognizer

📅 2022

- Created a program as a graphical user interface (GUI) application for image recognition using a pre-trained ResNet-50 model from tkinter.

Lead Programmer

File Organizer

📅 2024

- Developed a Python file organizer that sorts files by type with an undo feature to restore structure.

Lead Programmer

HandTrack Volume Control

📅 2024

- Developed a real-time volume control system using hand tracking with OpenCV, Mediapipe, and PyCaw.
- Integrated gesture-based volume adjustment and visual feedback, achieving real-time frame processing with a custom FPS counter.

EDUCATION

The Pennsylvania State University

College of Engineering - Bachelors of Science

📅 August 2020 - May 2024

WORK EXPERIENCE

SW Digital A11y

JR QA Software Engineer

📅 December 2023

Best Buy

Sales Advisor

📅 September 2024

Penn State Vairo Library

Library Assistant

📅 August 2022 - May 2024

Rahman Financial Services

Assistant

📅 January 2022 - January 2023

Home Depot

Order Fulfillment Associate/Cashier

📅 May 2021 - August 2022

SKILLS



COURSEWORK

- Computer Organization and Design
- Assembly Language Programming
- Intermediate Programming C++
- Java Object-Oriented Programming with WEB
- Discrete Mathematics/CS
- Data Structures and Algorithms
- Programming Language Structures
- Operating Systems Design and Construction
- Database Management Systems
- Secure Programming Using SEEDLabs
- The Engineering of Complex Software Systems
- Secure/Security Network Based Programming
- Machine Learning and Computer Vision