Muhammad Bilal

774-707-1041 | muhammadbil27gmail.com | https://www.linkedin.com/in/muhammad-bilal-221609231
https://github.com/mbila227

EDUCATION

University of Massachusetts Amherst
GPA – 3.63/4.00

Bachelor of Science in Computer Science — *Expected Graduation: May 2026*

Courses
Intro to CS, Object-Orientated Programming, Data Structures and Algorithms, Calculus 1, Calculus 2

EXPERIENCE

Software Engineer Fellow
July 2024 – August 2024

Headstarter AI - Artificial Intelligence Company — *Remote*
- Built 5 AI apps and APIs using Next.JS, OpenAI, Pinecone, StripeAPI with 98% accuracy as seen by 1000 users
- Developed projects from design to deployment leading 4+ engineering fellows using MVC design patterns
- Coached by Amazon, Bloomberg and Capital One engineers on Agile, CI/CD, Git and microservice patterns
- Built a final project aimed at raising over $1000

Software Engineer Intern
June 2023 – August 2023

Edworldo - Education Tech Startup — *Austin, TX*
- Built a prototype question generator that crafts questions similar to the STARR test
- Leveraged advanced machine learning models to train the data used for the prototype
- Error handled and made API calls between the front and back end

Machine Learning Intern
June 2021 – August 2021

Persivia Inc- Healthcare IT Company — *Marlborough, MA*
- Leveraged machine learning models utilizing Python to predict costs of patients
- Leveraged Numpy to predict costs based on age, condition, and risk level of disease
- Utilized Java to create user interface that displays machine learning models

PROJECTS

A.I Personal Assistant | *Python, OpenAI, gTTS, pyaudio, playsound*
Dec 2023 – Jan 2024
- Developed a voice-activated assistant using Python with modules such as pyaudio, playsound, gTTS, and OpenAI
- Integrated OpenAI's GPT-3.5-turbo model to process and respond to user voice commands
- Utilized the Google Text-to-Speech (gTTS) library to convert AI-generated text responses into audio

Quiz Maker | *Python, Jupyter Notebook, OpenAI, Gradio, ipywidgets*
May 2023 – June 2023
- Utilized Jupyter Notebook to train machine learning model that responds with questions based on given information
- Implemented OpenAI's API to create plethora of questions ranging from math to general knowledge
- Finetuned the machine learning model using OpenAI in attempt of scaling the application to schools

EmployeeHub Pro | *Java, MYSQL, Bootstrap, Spring Framework, Angular*
November 2022 – December 2022
- Utilized relational database MYSQL to store data of employees and angular framework to build a manageable front end displaying the data
- Made API calls between the back and front end utilizing Postman API
- Independently developed a Fullstack application

TECHNICAL SKILLS

Languages: Java, Python, C, SQL, JavaScript, HTML/CSS
Frameworks: React, Node.js, Spring, Bootstrap
Developer Tools: Eclipse, VScode, Linux, Windows
Libraries: pandas, NumPy, Matplotlib