Bilal Shihab

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EDUCATION —

Biomedical Engineering - Second Year

Graduation: May 2027 University of Texas at Austin Austin, TX

Related Courses: Circuits, Introduction to Programming, Introduction to Engineering Design

High School Diploma June 2023 Lynbrook High School San Jose, CA

Courses

DeepLearning.Al Langchain course, CS50 Introduction to Computer Science

Programming Languages: Python, C++, and MATLAB

Tools/Technologies: Langchain, Data Structures, Algorithms, Jupyter Notebook, Android Studio/IntelliJ, Pandas, Git, Arduino

PROJECTS —

Coder and Researcher at FOIL

09/23 - Present **UT** Austin Austin, TX

- Improved blood flow analysis during surgery by automating laser speckle contrast regulation using Arduino.
- Optimized the contrast adjustment script by rewriting it from MATLAB to Python, enhancing the system's efficiency.

Longhorn Neurotech 09/24 - Present **UT Austin** Austin, TX

- Collaborating on developing a machine learning model for Brain-Computer Interfaces (BCI) to control a prosthetic arm.
- Exploring various interpretability techniques to better understand and explain machine learning model outcomes.

Android Development Support

05/24 - Present Bithunch LLC Mountain View, CA

Updated an Android application to the latest version, optimizing performance, resolving compatibility issues, and managing dependencies with Gradle. Integrated updated Crashlytics and Google Analytics libraries

07/24 - Present **College Al Project** Personal Project San Jose, CA

- Developing an AI chatbot with Langchain and Retrieval-Augmented Generation (RAG) to assist students in selecting majors and colleges, leveraging Vertex AI for improved model performance.
- Enhancing user experience by implementing a Google Cloud database of colleges and their popular majors.

EXPERIENCE –

04/22 - 06/23 **Math Instructor** Mathnasium Mountain View, CA

- Mentored grade school students in math, helping them understand and appreciate various concepts.
- Helped resolve conflicts among students and employees, promoting a collaborative workplace.

Member of Biomedical Engineering Society (BMES) **UT** Austin

08/23 - Present Austin, TX

- Led the design of the 2023 BMES Case Competition, formulating the challenge and guidelines.
- Worked collaboratively with a team to develop an engaging competition prompt.