Sal Hasan

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EDUCATION

Lebanese University - Faculty of Technology — Expected October 2023
Bachelor's Degree in Computer and Communication Networks Engineering — *Current GPA: 3.68/4.0*
Baissour Official Secondary School (**High school**) — July 2020

RELEVANT COURSEWORK

Courses: Intro to Computer Science, Structural Programming, Object-Oriented Programming, Data Structures, Relational Databases, Operating Systems, Programmable Circuits, Web Development, Real-Time Programming, Client Server Architecture, Programming Networks Systems, Analog Electronics, Digital Electronics, Calculus III, Linear Algebra, Applied Statistics and Probability

SKILLS

Languages: C, Rust, Basic Go, Python, HTML/CSS, JavaScript/TypeScript, Markdown, LaTeX
Tools: Git/GitHub/GitLab/BitBucket, AppVeyor/CircleCI, Docker/Podman, Unix Shell, Node.js, Vite.js, VS Code, Postman, Windows, Linux
Frameworks: React, Leptos, Express.js, WordPress
Libraries: NumPy, Scipy, Pandas, Matplotlib, p5.js, d3.js, jQuery, Mongoose
Databases: MongoDB, Microsoft SQL Server, MySQL

PROJECTS

Maternal and Fetal ECG Analysis for Early Detection of Fetal Distress — July 2023 - October 2023
- Conducted a project leveraging Python and signal processing techniques to achieve the separation of fetal ECG signals from maternal ECG signals.
- Implemented a Convolutional Neural Network (CNN) utilizing Gramian Angular Field (GAF) representations of ECG signals for the accurate classification of both maternal and fetal ECG signals.
- This project demonstrates expertise in biomedical signal processing, machine learning, and data analysis for healthcare applications.

MelodyBox — March 2023 - Present
- Designed and developed a user-friendly web application enabling users to easily download songs along with comprehensive metadata, including artist, album, lyrics and track information.
- Originally:
  * The Backend is an *ExpressJS* Server for a *RESTful API* written in *TypeScript*.
  * Validated with *Zod* and unit-tested with *Jest*.
  * The Frontend is a *React* app written in *TypeScript*.
  * The project used Prettier for formatting and ESLint for linting.
- Currently, the backend is an *Axum* Server written in *Rust*.

Desmos Offline Mode | *HTML/CSS, TypeScript, Tauri, Vite.js, VS Code* — August 2020 – Present
- Developed a Desktop port of Desmos Graphing Calculator from Online Web App.
- It has gained 30 stars on *GitHub*.
- Originally, it was made as an *Electron* App with *Appveyor* CI/CD.
- Currently, it has been rewritten to a *Tauri* App with the frontend using *Typescript* and built with *Vite.js*.

Sal Discord Bot | *NodeJS, Discord API, Git* — November 2020 - April 2021
- Designed and implemented a Discord Bot using Discord.js.
- It utilizes a simple custom-made command handler/parser.
- Each command is made to it's own JavaScript module making the design scalable and easy to work on.

EXPERIENCE

TECHlarious Full Stack Boot-camp — January 2023 - March 2023
Successfully completed a rigorous full-stack development bootcamp, gaining proficiency in both front-end and back-end technologies. Such as: HTML, CSS, JavaScript, React, NodeJS, ExpressJS, MongoDB.

Private Tutoring | *Tutor, Math, Computer Science* — 2022 – 2023

Freelancer | *Freelance* — 2021 – 2023
Successfully completed various freelance programming projects for clients across diverse industries.

WiCode Data Science | *Python* — February 2021
Partook in a comprehensive Python workshop with hands-on learning and practical skills in Python programming. Covered fundamental concepts, data manipulation, and real-world applications. Facilitated interactive coding exercises and encouraged participants to build Python projects, fostering a strong foundation in Python development.