

Emmanuel Zerefa

zerefa.em@gmail.com | linkedin.com/in/eman-zer | github.com/amnzer

EDUCATION

Rice University

B.S. in Electrical and Computer Engineering

Houston, TX

Aug 2022 – present

3.98 GPA

EXPERIENCE

Software Engineering Intern

Slack

May - Aug 2024

San Francisco, CA

- Led a project about automating **migration of CI/CD infrastructure** from **Jenkins** to **Github Actions**
- Consulted with end users about their needs and wrote design documents for the project accordingly
- Used **Python** and **Bash** to read and automatically migrate pipelines from Jenkins instances
- Researched and tested the effectiveness of using **LLMs** to accelerate the migration
- The tool saves the company over **1300** developer hours and **\$90,000/year**
- Wrote a post for Slack's engineering blog about the project

Capital One Black and Hispanic Tech Summit

Capital One

May 2023

Remote

- Participated in a week-long tech summit hosted by Capital One
- Wrote projects utilizing technologies such as **REST APIs**, **SQL**, **Node** and **React**
- Developed a full stack web app which won **2nd** at the event's hackathon

PROJECTS

Genre Guesser | *Python, PyTorch*

Mar - Apr 2024

- Designed a convolutional neural network that identifies the genre of a song
- Implemented the CNN using **PyTorch**, and used Librosa for data exploration and feature extraction
- Researched and learned best practices in feature engineering, CNN design, and machine learning on audio data

Zen Switch | *JavaScript, HTML, CSS, Chrome API*

Jun - Jul 2023

- Designed a Chrome extension which prevents procrastination and getting distracted
- The extension redirects you from your current tab if the tab is on your list of distracting websites
- Implemented the GUI using HTML/CSS, and the extension's logic using JavaScript and the Google Chrome API

Dining on a Dime | *Python, Flask, HTML, CSS, Git*

May 2023

- Developed a web app which finds nearby, budget-friendly and highly rated restaurants for you
- Designed the backend using Flask, Python and the Google Maps API, and the frontend using HTML and CSS
- Won 2nd place at the Capital One Tech Summit's hackathon with this project

Network Security Analysis | *Python, Tableau*

Feb 2023

- Wrote various Python scripts to analyze the robustness of an internet security provider's network
- Simulated random attacks and targeted attacks to test the strength of the network
- Visualized the data concerning the network's strengths against different types of attacks using Tableau

SKILLS

Relevant Courses: Machine Learning Concepts, Dynamical Systems, Algorithms, Intro to Program Design

Programming Languages: Python, Bash, Java, JavaScript, HTML, CSS

Human Languages: Spanish

Tools: Tableau, Jenkins, Github Actions, Numpy, Pandas, PyTorch, Selenium, Flask

Hobbies: Reading, Gaming, Traveling, Fitness, Languages