Carlos Lopez

Email | Portfolio | LinkedIn | Github

Education

Boston University Boston, MA
Bachelor of Science in Computer Science and Physics *Sept. 2019 – May 2022*
HSF Scholar, Upsilon Pi Epsilon Member

Technical Skills

Languages: Python, Typescript, Java, C/C++, Rust, Solidity, SQL, Lua, Haskell, Ocaml, Fortran, Bash
Web Development: React, Next.js, Tailwind, Node.js, Bootstrap, jQuery, Flask, Django, Figma
Data Science: Pandas, NumPy, Matplotlib, Pillow, OpenCV, Pytorch, Selenium, Tensorflow
Tools: Git, Docker, Firebase, VS Code, Ghidra, Linux, AWS, Redis, Kali, Kubernetes

Experience

FrontEnd Developer January 2023–Present
ezML *Remote*

- Collaborated closely with the design team at ezML, a fast-growing startup specializing in machine learning solutions, to transform wireframes and mockups into user interfaces while ensuring consistency and responsiveness across different devices and screen sizes.
- Optimized the performance of the ezML platform and landing page through industry best practices which resulted in improved page load times and enhanced user experience.
- Played a key role in A/B testing and user feedback analysis, collaborating with the product team to incorporate user insights into the continuous development of the platform's UI/UX.

Computer Assistant/Programmer 2019 – May 2022
Boston University IS&T Service Desk *Boston, MA*

- Troubleshooted, maintained, and solved the issues affecting the technology of the BU community and its facilities
- Kept track of daily phone, in-person, and email client interactions through the ServiceNow ticketing system
- Managed admin groups and research software, along with its licensing and renewal

Data Scientist August 2020 – May 2021
Blinkah *Boston, MA*

- Built GPS software to detect pedestrians, ongoing traffic, and neighboring car lanes with machine learning and OpenCV in Python by communicating and working alongside 8 students for enhanced car safety ratings.
- Filtered out images with a vanishing point and used image multiplication along with Hough transform to isolate lanes for continuous lane detection, adding additional lanes to the system for enhancing detection rates by 66%

Projects

Crypto Markowitz Website | *Firebase, Bootstrap, Flask, Pandas, CoinGecko API*

- Implemented website that given a list of cryptocurrencies will return get the suggested optimal investment distribution according to Markowitz Portfolio Optimization Theory
- Used Flask for backend, Pandas, and Numpy for manipulating crypto price data, Scipy for optimization of parameters and minimization of loss, and Matplotlib for making the interactive graphs served to the user

Nutri-Snap | *Tensorflow, React Native, Flask, NodeJS*

- Collaborately made React Native app that used Tensorflow to recognize food items from phone camera in order to return their nutritional values
- Project was entirely made in two days and won first place out of 56 teams at Beyond Code remote hackathon

Interpreter | *Ocaml*

- Designed and constructed an interpreter in Ocaml supporting functions, custom syntax, loops, and conditionals in order to apply functional programming along with grammatical parsing and lexing

Noteworthy Classes Taken

Algorithm Analysis, Data Structures, Quantum Computing, Distributed Systems, Network Security, Malware Hunting and Reverse Engineering, Functional Programming, Methods for Quantitative Finance, Statistical Thermodynamics