

Maximo Machado

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EDUCATION

Massachusetts Institute of Technology | GPA: 4.7 / 5.0

May 2023

Candidate for Bachelor's Degree in Computer Science and Engineering

Cambridge, MA

- Relevant Coursework: Performance Engineering, Intro to Operating Systems, Design and Analysis of Algorithms, Computational Photography, Intro to Machine Learning, Computation Structures (Computer Architecture)

WORK EXPERIENCE

Software Developer, Deep Learning Libraries

July 2023 – Present

NVIDIA

- Work on library supporting GPU kernels that power DL libraries such as cuDNN, cuBLAS, and TensorRT
- Drove forward extension of project's CMake-build system to meet customer binary size concerns
- Flesh out test suite of project to exercise artifacts directly consumed by customer

CUDA Performance Intern

June 2022 – August 2022

NVIDIA

- Prototyped multithreaded improvements in CUDA's compute cache resulting in a 2-3x performance increase
- Implemented performance benchmarks and made pertinent conclusions based off of data
- Presented findings to CUDA Performance team and broader CUDA team as possible inclusion into production

Product Engineering Intern

June 2021 – August 2021

John Deere

- Developed and presented demos for proof of concepts utilizing Python and AWS for new team of 5 people
- Created CI/CD pipelines deploying code onto AWS services using infrastructure-as-code tools such as Terraform
- Migrated essential licensing encryption servers to new testing environment providing much-needed added security

Full Stack Web Developer Intern

August 2020 – November 2020

Falcn Lab LLC

- Architected a Customer Relationship Management (CRM) providing better organizational tools for working with company clients
- Designed a SQL database schema with careful attention paid to normalization
- Extended Content Management System's (CMS) admin tools to assist company's ability to post new content and articles

PROJECTS

Spotify Playlist Manager

December 2020

Sole Developer

- Created a website that served on average 150 monthly users at its peak, [spotifyplaylistmanager.net](#), that expands Spotify user's abilities to manage and manipulate their playlists
- Implemented the Multiple Playlist Searcher which Spotify implemented similar functionality 3 years later
- Wrote performant code by caching API requests and queuing jobs to sustain high server load and workaround Spotify API limitations

SKILLS

Programming Languages: C++, C, Python, Typescript, RISC-V Assembly, Bash

Frameworks: Node.js, React, Vue.js, Arduino

Other Tools: CMake, AWS, Drone.io, Terraform, NGINX, Linux, Git, Perforce, PostgreSQL, Redis