

Alejandra J. Perea Rojas

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EDUCATION

Harvard University

Cambridge, MA

Anticipated: May 2024

- Bachelor of Arts in Computer Science; Secondary in Physics.

• RELEVANT COURSEWORK:

- Systems Programming (CS61), Artificial Intelligence (CS182) Abstraction and Design in Computation (CS51), Intro to Algorithms (CS120), Applied Linear Algebra (AM120), Intro to Probability (STAT110).

• RELEVANT SCHOOL PROJECTS:

- Turing-complete OCaml interpreter, kernel called WeensyOS, a Bash Shell in C++, and a Python Ghost AI.

EXPERIENCE

Quantum Software Developer

May-Aug 2023

IBM QUANTUM

Yorktown Heights, NY

- Parametric Update
- Qiskit Early Access completion
- Observability
- Refactoring

Software Engineer

Jun-Dec 2022

TEAMCORE AT HARVARD UNIVERSITY

Cambridge, MA

- Revamped error handling for the PAWS SMART API by programming a Python interface that expedited testing requests.
- Crafted 15 artificial parks in QGIS and Python to verify ML predictions. The interface would handle the artificial data with HTTP requests. Outlined the program with greater detail in the API's deployment guide.

Sensors Intern

May-Aug 2022

WILDLIFE CONSERVATION SOCIETY

Remote / NY

- Developed about 100 queries in SQL to then build an article processing interface with Python to deploy a virtual library.
- Researched and drafted an 8-page white-paper to review state-of-the-art AI video processing and conservation tools.

PROJECTS

AI Chat-Bot & Web-Application - Co-Founder of Entrevista

Apr-May 2023

- Developed, tested, and launched a consulting case-interview MVP with Python, React, and AWS.
- Presented MVP and became a Y-Combinator finalist.

Web-Scraper & Emailer - Freelance Software Engineer at Pre-College Research Institute

Apr-May 2023

- Developed a web app with React and Python to scrape contact information of Title 1 schools in the US.
- Automated subscription-based email lists with 3000 contacts for outreach to qualifying schools.
- Deployed process for organizational use and re-vamped process with automated pipelines.

ACTIVITIES

Teaching Fellow

Sep-Dec 2022

HARVARD UNIVERSITY

Cambridge, MA

- Facilitated a Systems course of about 200 students by holding office hours and a section of about 25 students weekly.
- Covered 6 topics using C++: data memory and representation, assembly, kernel, caching, shell, and synchronization.

DIB Advocacy Director

Aug-Dec 2022

WOMEN IN COMPUTER SCIENCE

Cambridge, MA

- Oversaw and collaborated with 8 members on initiatives to promote diversity and inclusion and organized events to provide more resources to underrepresented groups.

SKILLS

Programming: Proficient (3+ years) in Python and C++. Experienced (1+ years) with Java, OCaml, and SQL.

Development: Proficient (3+ years) in HTML/CSS. Experienced (1+ years) with PHP, JavaScript, TypeScript, and React.

Environments: Skilled with QisKit, AWS, Docker, OpenAI, Linux, Azure, MATLAB, and x86-Assembly.

Language: Fluent in Spanish (native), intermediate in Mandarin Chinese, and elementary in Japanese.