Alejandra J. Perea Rojas

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EDUCATION

Harvard University   Cambridge, MA
- Bachelor of Arts in Computer Science; Secondary in Physics.   Anticipated: May 2024
- Relevant coursework: Algorithms, Systems Programming and Machine Organization, Abstraction and Design in Computation, Applied Linear Algebra, Probability, Electromagnetism, Mechanics, and Artificial Intelligence.

TEACHING EXPERIENCE

Course Assistant
HARVARD SEAS   Sep-Dec 2022, Cambridge, MA
- Facilitated COMPSCI 61, college-level course of about 200 students, by holding office hours and review sections weekly.
- Covered data memory and representation, assembly, kernel, caching, shell, and process synchronization using C++.

FOX LANE MIDDLE SCHOOL   Apr-Jun 2019, Bedford, NY
- Full-time teacher assistant for Algebra 1 in two classes and 6th-grade Math in another class.
- Assisted students in class, with homework, and helped grade exams and assignments.

Tutor
INDEPENDENT TUTORING   Jun 2018-Present, NY / MA
- One-on-one tutoring in AP Physics, AP Chemistry, AP Computer Science, AP Calculus BC, Algebra, and Geometry.

INCOGNITY ACADEMY   Jun-Aug 2021, Remote / Peru
- Developed a summer SAT prep and a mentorship program for students in Peru aiming to study in the United States.
- Held review sessions twice weekly and led the English section of the SAT.

PUENTE TUTORING   Sep 2017-Jun 2019, Bedford, NY
- Tutoring and mentoring middle school students in the English as a Second Language program with Algebra and English.
- As president of the club Puente, recruited tutoring volunteers, increasing the club's volume from 2 to 36.

Speaker and Mentor
HARVARD ALLSTON EDUCATION PORTAL   Jun-Aug 2020, Cambridge, MA
- Designed and led ELA classes for 6-8th graders for a remote summer class. Lessons held daily for three hours a day.
- Participated as a speaker in summer sessions on Zoom and guided students on their transition to high school.

ENGINEERING EXPERIENCE

Software Engineer
TEAMCORE PAWS   Jun-Dec 2022, Cambridge, MA
- Improved error handling for the PAWS SMART API by programming an interface and framework that expedited the API's local deployment and set-up. Also worked with QGIS to craft in Python the large set of artificial data used for testing.
- Developed the interface with Python to handle a suite of requests in JSON form and wrote a document to detail procedures.

Drones and Sensors Intern
WILDLIFE CONSERVATION SOCIETY   May-Aug 2022, Remote / NY
- Built an article processing program with Python and crafted a set of SQL queries to help develop an online database.
- Researched and drafted a white-paper to review state-of-the-art AI-based video processing and conservation-related tools.

AI Intern
C MINDS through DRCLAS   Apr-Aug 2021, Remote / MX
- Interned at a women-led action tank for ethical AI through the David Rockefeller Center for Latin American Studies.
- Helped install an AI Living Lab in Yucatan and establish a Diabetic Retinopathy AI-based Screening Program in Jalisco.

SKILLS

- **Programming:** Proficient (3+ years) in Python and C++. Experienced (1+ years) with OCaml, Java, and SQL.
- **Development:** Proficient (3+ years) in HTML/CSS. Experienced (1+ years) with PHP, JavaScript, React, and Flask.
- **Environments:** Skilled with Azure, AWS, Docker, and MATLAB.
- **Language:** Fluent in Spanish (native), intermediate in Mandarin Chinese, and elementary in Japanese.