Lucas Carlos Casas

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EDUCATION

Cornell University, College of Engineering, Ithaca, NY

Expected May 2026

B.S. – Computer Science, Minor in Business

Relevant Coursework:

CS 2110: Data structures and algorithms (Java), CS 2800: Discrete structures, CS 3110: Data Structures & Functional Programming (OCaml), CS 4700: Foundations of Artificial Intelligence, CS 4701: Practicum in Artificial Intelligence, CS 4780: Intro to Analysis of Algorithms, BTRY 3080: Probability Models and Inference

PROJECTS & WORK EXPERIENCE

Lockheed Martin, Software Engineering Intern

June - August 2024

- Incoming intern with the Enterprise Business and Digital Transformation team to develop and optimize software.
- Worked in a team of 3 on a site to centralize Lockheed Martin research using Angular, .NET, and Python.

Palantir Technologies, Palantir Spring Launch

March 2024

- Collaborated with Palantir engineers to work and learn about the Palantir AIP (Artificial Intelligence Platform).
- Engaged in learning workshops to improve technical interview and collaborative software skills.

Flare, Founder

Mar. 2023 - Present

- Architected and developed Flare, an innovative open-source Python tool that aggregates energy and climate news from diverse sources, centralizing them into an SQLite3 database for easy access.
- Implemented advanced search capabilities leveraging Elasticsearch and Lucene, enhancing user experience through keyword matching, date filters, and a truthfulness algorithm that cross-references articles with IPCC climate report.
- Enhanced Flare's NLP capabilities through meticulous text preprocessing and machine learning techniques.

Ventures Accelerated, Software Fellow

Sep. 2023 - Present

- Served as a technical liaison between Ventures Accelerated and participating startups.
- Collaborated with a dynamic team of entrepreneurs, providing software solutions tailored to startup requirements.
- Integrated the backend using AWS Lambda, improving API response speed by ~30% from the Flask counterpart.

<u>Cornell Hitch</u>, Cornell AppDev Hackathon Runner-Up **Back-end Developer**

Dec. 2022

- Developed a Flask REST API application with Python to handle ridesharing to airports for Cornell students.
- Won the second-place award out of 30 teams for best backend.
- Supported student authentication with OAuth, SQL, and Alchemy.
- Collaborated in a team of four, using Git for front-end and back-end integration, resulting in a cohesive application.

McDiver

May 2023

• Reduced Dijkstra's algorithm to solve a maze problem in Java, with an algorithm ranked 12th out of 620 students.

SKILLS

PROGRAMMING: Python, Java, OCaml, Rust, JavaScript, SQL, (Familiar) C++

LIBRARIES/FW: Reactis, Docker, SQLAlchemy, OAuth, Flask, REST APIs, Elastic, Git, GCP, AWS, LaTeX

LANGUAGES: Spanish (native), English (native), Catalan (proficient)

LEADERSHIP

Sin Fronteras Club, President

- Organized the running, planning, and coordination of all events related to Hispanic culture.
- Coordinated subgroups by delegating responsibilities to sub team leaders to ensure smooth operation.

Cornell Prepare, *Prepare Mentor*

• Led and mentored a diverse group of international incoming students, facilitating transition to Cornell by organizing orientation activities, fostering a welcoming environment, and addressing cultural acclimation challenges.