

Lucas Carlos Casas

lcc79@cornell.edu

<https://lccasasp.github.io>

+1 (305) 849-7280

EDUCATION

Cornell University, College of Engineering – Ithaca, NY

Expected May 2026

B.S. – **Computer Science**, Minors in Artificial Intelligence, Business

Relevant Coursework:

CS 2110: Data structures and algorithms (Java), **CS 2800**: Discrete structures, **CS 3110**: Data Structures & Functional Programming (OCaml), **CS 3410**: Computer Systems, **CS 4700**: Foundations of AI, **CS 4701**: Practicum in AI, **CS 4820**: Intro to Analysis of Algorithms, **BTRY 3080**: Probability Models and Inference, **CS 4780**: Machine Learning, **Other**: Calculus 1-3 & Linear Algebra

PROJECTS & WORK EXPERIENCE

Lockheed Martin, Software Engineering Intern & Fall 2024 Co-op

June – Dec. 2024

- Shipped ~1800 lines of code for a large web app using **Angular**, **.NET**, and **C#** as a full stack developer.
- Hyper tuned **LLM's** and **RAG as a service** to interact with proprietary data and generate insights.
- Collaborated in a team on a large-sized project leveraging git workflows, **AGILE** methodology and **SCRUM**.
- Earned an extended part-time remote position for Fall 2024 based on exceptional performance within team.

Flare, Founder

March 2023 - Present

- Architected and developed Flare, an innovative open-source **Python** search engine that aggregates energy and climate news from diverse sources, centralizing them into a **NoSQL database** for easy access.
- Implemented advanced search capabilities leveraging **Elasticsearch** and **Lucene**, enhancing search through keyword matching, date filters, and a truthfulness algorithm that cross-references articles with IPCC climate report.
- Engineered a search engine that can sort and index 500 articles with an average speed of **78 ms**.
- Engineered an interactive globe using **React & ThreeJs**, leveraging linear algebra & trigonometry to visualize data.
- Deployed web application using cloud with **AWS** and **CI/CD pipelines** to build.

Palantir Technologies, Palantir Launch

March 2024

- Mentored by 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.
- Analyzed a pandemic simulation, leveraging **Palantir Foundry**, **AIP**, and **Typescript** to draw analytical insights.

Ventures Accelerated, Software Fellow

Sep. 2023 - Present

- Collaborated with startups, providing software consultancy & code tailored to their requirements.
- Integrated a team's **AWS Lambda backend**, improving API response speed by ~**35%** from their **Flask** counterpart.

Cornell Hitch, 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 ~120 peers** for best backend.
- Created a secure student authentication API with **OAuth**, **SQLite3**, and **Alchemy**.
- Worked in a team of three, using **GitHub** for DevOps, resulting in a cohesive frontend-backend pipeline.

McDiver

May 2023

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

LEADERSHIP

Sin Fronteras Club, President

- Organized the running, financing, planning, and coordination of all campus events related to Hispanic culture.

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.

SKILLS

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

LIBRARIES/FW: Reactjs, Nodejs, Angular, .NET, Docker, Elastic, SQLAlchemy, OAuth, Flask, REST APIs, Git, GCP, AWS

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