

Lucas Carlos Casas

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Ithaca, NY 14850
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EDUCATION

Cornell University, College of Engineering, Ithaca, NY
B.S – **Computer Science**, Minors: Business

Expected May 2026

RELEVANT COURSEWORK:

CS 2110: Data structures and algorithms (Java), **CS 2800:** Discrete structures, **CS 3110:** Data Structures and Functional Programming (OCaml), **CS 193C** Client-Side Programming (JavaScript), **CS 106B:** Object Oriented Programming (C++), **CS 4700:** Foundations of Artificial Intelligence, **CS 4701:** Practicum in Artificial Intelligence. **CS 4820:** Algorithms

PROJECTS/WORK EXPERIENCE

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.
- Automated the extraction and summarization of academic papers using the GPT-3 API.
- Enhanced Flare's NLP capabilities through meticulous text preprocessing and machine learning techniques.

Media Validator

- Developed a media validation model using BERT and SVM in TensorFlow to cross-reference climate change media with the IPCC climate report to assess a validity score, identifying truth or false information.
- Used Flare's database and scraping capabilities to leverage a dataset for our supervised learning.
- Achieved a Mean Square Error of only 1-2% varying with our different models.

Ventures Accelerated, Software Fellow

Sep. 2023 - Present

- Served as a technical liaison between Ventures Accelerated and participating startups.
- Migrated and deployed startup's backend server using AWS Lambda
- Collaborated with a dynamic team of entrepreneurs, providing software solutions tailored to startup requirements.

Cornell Hitch, Cornell AppDev Hackathon 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.
- Built student authentication with OAuth, SQL, andAlchemy.
- Collaborated in a team of four, using Git for front-end and back-end integration, resulting in a cohesive application.

McDiver

May 2023

- Used Dijkstra's algorithm to solve a maze problem in Java, with an algorithm ranked 12th out of 620 students.
- Developed an algorithm that maximizes value collected in x steps, implementing DFS techniques and heuristics.
- Worked with Game States, GUI applications, and multi-threading programming.

SKILLS

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

LIBRARIES/FW: Reactjs, Docker, SQLAlchemy, OAuth, Flask, REST APIs, Elasticsearch, Lucene, Git, GCP, AWS
Jupyter Notebook, TensorFlow

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

LEADERSHIP

President, Sin Fronteras Club

- 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.

Prepare Mentor, Cornell University

- 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.