Gabriel Castillo

Ithaca, NY ✉ gabocastillo321@gmail.com 📞 682-283-3158 🔗 gabrielach.com in GabrielCastilloH

Education

Cornell University, College of Arts and Sciences	GPA: 3.83 / 4.0	*Expected May 2028*

BA in Computer Science, Minor in Artificial Intelligence
Relvant Courses: OOP & Data Structures (Honors), Discrete Math, Functional Programming, Intro to ML

Technical Skills

Languages: Swift, Java, Python, TypeScript, JavaScript, C++, C, OCaml
Frameworks / Libraries: Flask, SQLAlchemy, PyTorch, Firebase, UIKit, JavaFX, Expo, React Native
Natural Languages: English (native), Spanish (fluent), Chinese (conversational)

Experience

rapStudy — US DoE-funded Musical Ed-Startup — *Remote*
Full-Stack Software Engineer Intern — *Dec 2024 – August 2025*
- Refactored a 5,000+ line React codebase, improving page load times by 30%.
- Resolved major Firebase syncing issues, increasing data throughput by 40%.
- Delivered 3 new features that enhanced platform usability and demo success.

Jane Street — *New York, NY*
FOCUS Fellow — *May 2025*
- Selected as 1 of 51 students nationwide for Jane Street's FOCUS program in trading & technology.
- Completed market simulations, problem-solving challenges, and Chip Trading Game.
- Gained hands-on exposure to OCaml, building functional programming skills for quantitative finance.
- Analyzed behavioral finance case studies in Heuristics & Biases workshop, identifying cognitive bias impacts.
- Networked with Jane Street traders, engineers, and recruiters to explore workflows and career pathways.

Blue Pond Group Ltd. — Hatch Blue Backed Startup — *Chiang Mai, Thailand*
Full-Stack Software Engineer Intern — *Aug 2022 – Jun 2024*
- Built and launched the company website and blog using HTML, CSS, and JS.
- Developed an iOS app for shrimp farmers using Swift and Firebase.
- Boosted profits by 15% through product placement analysis with Python.

Projects

Harbor 🔗 – Cornell Dating App — *June 2025 – Present*
- Built personality-first dating app with progressive photo reveal and 1:1 matching.
- Engineered full stack in React Native, Expo, Node.js, and MongoDB.
- Integrated StreamChat and protected routes for @cornell.edu access.
- Collaborated with 2 co-founders to launch at Cornell Fall 2025.

Fyndz – Thriftstore Discovery and Review App — *Apr 2025 – Present*
- Developed and shipped core frontend features using React Native and Expo, improving app responsiveness and UX.
- Designed and implemented reusable objects and classes that reduced code duplication by 20% improving performance.
- Collaborated with a 4-person engineering team using Agile practices, coordinating weekly sprints and code reviews.

Odyssey – Interactive OCaml Theorem Prover — *Mar 2025*
- Worked with 3 others to build propositional logic theorem prover with SAT solving and tautology check.
- Implemented recursive descent parser and AST interpreter in OCaml with 5 logical operators.
- Developed interactive CLI with ANSITerminal for colored output and step-by-step proof visualization.
- Added CNF conversion, DIMACS export, and LaTeX document generation for academic compatibility.

LockedIn 🔗 – iOS Swipe-Based Networking App — *Dec 2024*
- Built LinkedIn-Tinder hybrid at Cornell AppDev's Hack Challenge (1st/28).
- Developed frontend with Swift and UIKit; integrated Firebase for auth and messaging.
- Created REST API with Flask, SQLAlchemy; used AWS S3 for image hosting.

Artificial Life Evolution Simulator — *Aug 2024 – Dec 2024*
- Led a team of 4 to develop a creature evolution simulation with food, reproduction, and mutation.
- Implemented a parser and AST interpreter with fault injection capabilities.
- Built simulation engine and JavaFX GUI with real-time user interaction.
- Enabled large-scale simulations of billions of ticks to emulate evolutionary behavior.