GABRIEL CASTILLO

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EDUCATION

Cornell University, College of Arts and Sciences *GPA: 3.92*   Ithaca, New York
BA in Computer Science, Minor in Artificial Intelligence   Expected May 2027

- ○ *OOP & Data Structures – Honors (Java)*
- ○ *Functional Programming (OCaml)*
- ○ *Discrete Math for CS*
- ○ *Frontend App Dev*
- ○ *Linear Algebra*
- ○ *Calculus II*

Prem Tinsulanonda International School   Chiang Mai, Thailand
International Baccalaureate Diploma: *44/45*   SAT: *1550*   May 2024

TECHNICAL SKILLS

- o Programming Languages: Swift, Java, Python, JavaScript, C++, HTML/CSS
- o Frameworks & Libraries: AWS, SQLAlchemy, PyTorch, React Native, Node.js, UIKit, Node.js, Expo
- o Developer Tools: Git, JUnit, XCode, Docker, Firebase, MongoDB, Postman, Google Cloud
- o Natural Languages: Spanish & English (Native), Mandarin (Proficient)

PROJECT EXPERIENCE

Swipe Based Networking App | *Full-Stack Developer*   Sep 2023 - Present
- o Created award-winning (of 28 teams) LinkedIn-Tinder hybrid for Cornell AppDev's Hack Challenge FA24
- o Developed frontend solo using Swift and UIKit on XCode, used Firebase for auth and messaging.
- o Developed a REST API with Python, Flask and SQLAlchemy relationships and AWS S3 for image storing

Artificial Life Evolution Simulator | *Group Class Project*   Aug 2024 – Dec 2024
- o Lead a team of 4 students to develop a simulation where creatures eat, reproduce and mutate to evolve.
- o Created a language parser and interpreter using Abstract Syntax Trees with fault injection.
- o Developed a simulation engine and a JavaFX GUI that allow for real-time user interaction.
- o Enabled large-scale simulations capable of running billions of ticks to mimic realistic evolutionary behavior.

Kogyo | *Solo Project*   Aug 2024 – Present
- o Created a cross-platform React Native application that matches freelance labor with customers.
- o Developed frontend with Typescript using Expo, React Native, React Hooks and React Navigation.
- o Created a Node.js backend with Socket.IO, Mongoose, and MongoDB to manage the data.

WORK EXPERIENCE

Quantitative Developer   Ithaca, New York
Cornell Portfolio Management Club   Nov 2024 – Present
- o Developing a C++ back testing engine that simulates and evaluates profitability of trading strategies
- o Used PyTorch to build and train a neural network that predicts next-day stock prices from financial data
- o Helped develop a native iOS app for shrimp farmers using Swift & Firebase.
- o Designed a responsive website with HTML, CSS, and JavaScript and an interactive "pixel-propelling" effect.

Full-Stack Software Engineer Intern   Chiang Mai, Thailand
Blue Pond Group Ltd.   Aug 2022 – Jun 2024
- o Developed and launched the company's website and blog using HTML, CSS and JavaScript.
- o Developed a native iOS app for shrimp farmers using Swift & Firebase.
- o Analyzed product placement data with Python to maximize efficiency raising profits by 15%.