

Estuardo Lopez Letona

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Education

Carnegie Mellon University

Bachelor of Science in Computer Science

Pittsburgh, PA

Expected May 2027

- QPA: 3.54/4.00
- Concentration in Software Engineering & Minor in Social and Political History
- Activities: Acts2Fellowship, Spanish and Latin Student Association, Grappling Club

Bloomfield High School

High School Diploma

Bloomfield, NJ

June 2023

- GPA: 4.665
- Activities: Peer Leadership, Varsity Wrestling Captain, Honor Societies (NHS, Math, Science, Language), Red Cross Club, Glamour Gals Club, Varsity Soccer

Experience

CS and Mobile Development Instructor

Prime Factors Learning Lab

Newark, NJ

June 2025 – August 2025

- Designed and delivered a complete curriculum, introducing 30 students to core CS concepts, including binary systems, data structures, GitHub workflows, and mobile development with Swift and Python.
- Directed a student team in building a fullstack iOS app, integrating backend features with plans to publish to the App Store (see Swift Academy under Projects).

CS and Mobile Development Instructor

Prime Factors Learning Lab

Newark, NJ

May 2024 – August 2024

- Taught CS and mobile dev fundamentals; guided a student team through a frontend iOS app prototype.

Projects

Swift Academy

estuardolopez.com/projects/swift-academy

PFL

June 2025 – Present

- Developed a fullstack iOS learning app using a scalable MVVM architecture and Firebase for secure authentication and data storage, with plans for App Store release.
- Built an AI-powered Code Coach using Python, FastAPI, and the OpenAI API.

Hive

estuardolopez.com/projects/hive

Independent

April 2025 – May 2025

- Fullstack Hive game with Python backend (FastAPI, Pytest, Poetry) and React (TypeScript) frontend.
- Designed a modular MVC system with clean RESTful API endpoints and scalable game state. Turn-based gameplay with a responsive hex grid, drag/zoom, action highlights, and graph-based movement logic.

Gcode Agent

estuardolopez.com/projects/gcode-agent

PFL

March 2025 – May 2025

- Contributed to an AI chatbot with the Mastra framework, focusing on backend design, behaviors, and RAG.
- Improved DevOps with Docker, Codespaces, and GitHub Actions for local development, testing, and CI.

Personal Website

estuardolopez.com/projects/personal-website

Independent

May 2025 – June 2025

- Responsive developer showcase with Next.js and Tailwind CSS, using interactive components and Vercel.

Santorini

estuardolopez.com/projects/santorini

CMU

March 2025 – April 2025

- Fullstack Santorini game with Java backend (NanoHTTPD), includes extensive UML documentation.

Skills

- **Programming Languages:** Python, TypeScript, Java, C, JavaScript, HTML/CSS, Swift, Standard ML
- **Technologies:** FastAPI, RESTful APIs, Firebase, Next.js, React, SwiftUI, LLM APIs, Tailwind CSS, Docker
- **Tools & Dev:** GitHub, Agile and Scrum, CI/CD, Testing, DevOps, UI/UX, OOP, DS and Algos
- **Soft Skills:** Communication, Collaboration, Adaptability, Organization, Leadership