# SEBASTIAN HORTA

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#### **EDUCATION**

Columbia University (SEAS), NY — Computer Science B.S., Minor: Electrical Engineering Aug 2023 - May 2026

- <u>Relevant coursework</u>: Artificial Intelligence, Systems Programming, User Interface Design, Linear Algebra, Fundamentals of Computer Systems, Computer Science Theory, Intro-Electrical Engineering, Data Structures, Discrete Math, Probability for Engineers
- Resident Adviser (Engagement Coordinator) (2024-Present): Organize community-building events

Farmingdale State College (FSC), NY — Computer Science B.S. (Transferred) Aug 2022 - May 2023

• CGPA: 4.0 (President's List), Collegiate Science and Technology Entry Program (CSTEP)

## Skills/Languages/Technologies

- Programming Languages: Java, Python, C, JavaScript, HTML/CSS
- Frameworks & Tools: React, Flask, Bootstrap, Git, SQL, TensorFlow, scikit-learn, Godot, customtkinter, PIL, face\_recognition
- Systems & Platforms: GCP, Unix/Linux, APIs, Web Servers
- Spoken Languages: English (Fluent), Spanish (Fluent), French (Basic)

#### PROJECTS & EXPERIENCE

- Face Sorter Pro (2025): Developed a Python desktop app for photographers using face\_recognition, customtkinter, and PIL to detect and timestamp appearances of selected individuals in videos. Streamlined media review by enabling searchable face-based filtering.
- Mastering the Exposure Triangle (2025): Built an interactive educational Flask web app with JavaScript and Bootstrap to teach ISO, shutter speed, and aperture through real-time sliders and visual feedback.
- Personalized Gait Analysis Using Machine Learning (2024-25): Built ML pipeline analyzing VR sensor data to detect gait events with ~85% accuracy via advanced preprocessing, feature engineering, and Random Forest models.
- Web Server Development (2024): Built a multithreaded HTTP/1.0 web server in C, handling concurrent GET requests and ensuring robust compliance with web protocols and file security.
- **DevFest Hackathon Sustainability Project (2024):** Developed a full-stack Python app with API integration to monitor food expiration dates, reducing food waste by **10**% through user notifications.

### **ACTIVITIES & ORGANIZATIONS**

- Society of Hispanic Professional Engineers (SHPE) at Columbia University Committee Board Member (2023-Present): Organized professional and cultural events, including elevator pitch workshops, boosting inclusivity and SHPE visibility.
- Collegiate Science and Technology Entry Program (CSTEP) at FSC Member (2022-23): Collaborated on a senior-led engineering project as a freshman, demonstrating early initiative and teamwork.
- Orthodox Presbyterian Church Member/Volunteer (2018-23): Participated in local service initiatives such as Operation Christmas Child and community clean-ups.
- Other Involvement (2023-Present): Columbia IEEE, ColorStack, CU Application Development Initiative, Columbia University Brazilian Jiu-Jitsu Club, Sabor Dance Club

#### **A**WARDS

 Anders Scholarship (2024) • Columbia University Nathaniel Arbiter Scholarship (2024) • FSC President's List (2022-23) • NYS Scholarship for Academic Excellence (2022)