# Jose David Gómez De La Hoz

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## EDUCATION

**Bachelor of Science in Systems Engineering/Computer Science**          Barranquilla
**Universidad del Norte**                                        Expected Graduation 2026
Cumulative GPA: 4.33/5.0;

**Bachelor of Science in Computer Science**                              Tampa, florida
**University of South Florida**                                  Expected Graduation 2026
Cumulative GPA: 3.42/4.0;

**High School Diploma**                                                  Barranquilla
**Colegio Hebreo Unión**                                                        2021
Valedictorian of the graduating class.

**Conservatory of Music**                                                Barranquilla
Escuela de Música Alvin Schutmaat                                               2023
Basic Certificate in Music

## ACHIEVEMENTS

- *2nd Place in the First Hackathon of Talento Tech Barranquilla*, sponsored by the TIC Ministry of Colombia.
- Recognized as the best student in class during high school.
- Best Opening Speech, *Action IV MUN*, 2021.
- Awarded the *Orgullo Caribe Scholarship* and considered for the *Generación E* program for academic excellence.

## PROJECTS

**Earthquake Documentation Website**
- Designed and developed a website using Django, and MongoDB to document global earthquake data.
- Implemented interactive features for data visualization and streamlined information accessibility.

**Diabetes Prediction Model**
- Built a predictive model using Random Forest to analyze risk factors for diabetes.
- Currently authoring an article on findings for potential publication.

**Box Link Editor**
Developed a web application for creating and linking boxes with lines, enabling visual representation of relationships.

- Worked on implementing **box properties**, allowing users to:
  - Edit the number of inputs and outputs (default value of 1).
  - Assign a unique, editable name for each box (default format: "box + index").
  - Customize box color dynamically.
- Used React.js and React Hooks for managing state and ensuring real-time updates to the canvas.
- Designed intuitive UI for seamless user interaction.

**Post-Quantum VPN Prototype** (Python, FastAPI, React, Open Quantum Safe)
Team Lead & Cryptography Engineer

- Led design and implementation of a proof-of-concept VPN integrating Kyber-768 key exchange and AES-256-GCM tunnel encryption.
- Developed automated TUN/TAP interface setup using **pyroute2** and scripted secure channel initialization.
- Created REST API backend with **FastAPI** and integrated Open Quantum Safe for NIST-standardized post-quantum key exchange.
- Built a React-based frontend dashboard (deployed on Vercel) displaying real-time key-exchange and tunnel-statistics via Web Crypto API.

**PF_Gestion_Datos – Data Management Platform** (React, Node.js, PostgreSQL, Docker Compose, Nginx)
FullStack Engineer

- Designed and deployed a **microservices**-based platform for managing and querying person records.
- Built a **React** frontend with responsive UI, multiple **Node**.js microservices (CRUD, logs, queries), and a **PostgreSQL** database.
- Implemented service orchestration using **Docker Compose** and reverse proxying with **Nginx.**
- Delivered secure **APIs** for external integrations and automated service management.

**Python CLI To-Do App** (Python, Cryptography, CLI, PyInstaller)
Python Engineer

- Developed a secure, multi-user command-line task manager with encrypted data storage.
- Implemented password hashing + salting, and per-user task file encryption.
- Added full CRUD operations for tasks, notes, and batch deletion of completed tasks.
- Packaged into a standalone executable with PyInstaller for cross-platform deployment.

**Community Involvement**

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**Rosh – Yajad Barranquilla, Hanoar Hatzioni Barranquilla**                          Barranquilla
Mazkir                                                                                                                2021-2023
- Led activities and initiatives as part of a youth group in the Jewish community.
- Organized educational and social programs, fostering leadership and community engagement.

**CERTIFICATIONS**

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- *Introduction to Programming with Python* – Harvard CS50
- *Introduction to Cybersecurity* – Harvard CS50
- *Basic Artificial Intelligence* – MinTIC, Universidad Libre & Etraining (2024)
- *Introduction to Cybersecurity* | Cisco Networking Academy | 2025
- Duolingo English Proficiency Test: 140/160  (C1 Equivalent)

## INTEREST AND EXTRACURRICULAR ACTIVITIES

**Interests:** Artificial Intelligence, Cybersecurity

**Extracurriculars:**

- Tennis player with competitive experience.
- Music enthusiast with skills in singing and playing guitar.

## ADDITIONAL

**Technical Skills**: Python, SQL, HTML, JavaScript, NodeJS, CSS, Docker, PostgreSQL, Pandas, GraphQL (basic), GCP (basic)
**Languages:** Fluent in Spanish and English, Elementary level in Hebrew and French;