

Andrea Arturo Venti Fuentes

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EDUCATION:

Bachelor of Science in Computer Science, Minor in Mathematics

University of Miami (UM), Coral Gables, FL

Expected Graduation: Fall 2025

GPA: 3.69 / 4.0

RELEVANT COURSEWORK:

Data Structures & Algorithm Analysis | Systems Programming | Introduction to Software Engineering | Computer Organization & Architecture | Computer Programming I & II | Python Programming | Harvard CS50: Introduction to Computer Science | Discrete Mathematics | Probability and Statistics | Linear Algebra | Calculus I & II

PROFESSIONAL EXPERIENCE:

Explore Program Manager, INIT University of Miami Chapter

UM, Coral Gables, FL

April 2024 – Present

- Developing workshops to enhance students' technical skills and career readiness in software development.
- Curating resources and opportunities to foster an inclusive and diverse tech community.

Career Development and Outreach Chair, Google Developer Student Clubs

UM, Coral Gables, FL

May 2023 – May 2024

- Organized career development events, including guest speakers and networking, to support student growth.
- Fostered career growth and inclusivity through strategic partnerships and outreach efforts.

PROJECTS:

FlaskKeyring // Python, Flask, JavaScript, PostgreSQL, REST API, Bootstrap, HTML/CSS, Jinja, Heroku

- Built a zero-knowledge password manager with client-side AES-GCM encryption for end-to-end privacy.
- Developed secure REST APIs in Flask with PostgreSQL and deployed on Heroku for scalable hosting.
- Implemented authentication with Flask-Login, Flask-Mail, and multi-factor email verification.

BridgeChat // Dart, Flutter, Firebase, LibreTranslate, Docker, REST API

- Developed a cross-platform live chat app with real-time translation via Firebase Auth and Firestore.
- Integrated a self-hosted LibreTranslate container with reverse proxy for secure API access.
- Designed responsive UI/UX with multilingual onboarding and group chat support.

IndexNet-Engine // Java, Algorithms, Data Structures, PageRank, Web Crawling

- Created a Java-based search engine simulation with custom web crawler and PageRank algorithm.
- Utilized B-Trees for efficient data indexing and external sorting techniques for large datasets.
- Ranked pages by relevance using the PageRank implementation to demonstrate algorithmic concepts.

Portfolio Website // Next.js, React, TypeScript, Tailwind CSS, Vercel

- Built a sleek, modular, animated portfolio with Next.js, TypeScript, and Tailwind CSS.
- Deployed on Vercel with pnpm and PostCSS for optimized builds and developer workflow.

SKILLS:

Programming Languages: Python, Java, Go, C, JavaScript, TypeScript, Bash, Dart, Swift, Lua, OOP, SQL

Web Technologies: React, Next.js, Node.js, Flask, Bootstrap, Tailwind CSS, HTML/CSS, jQuery, AJAX, Jinja

Frameworks & Libraries: Flutter, SQLAlchemy, Matplotlib, NumPy, Pandas, Streamlit | **APIs:** REST API, Twilio, IEX

Databases: PostgreSQL, Firestore | **Tools & Platforms:** Git, Docker, Vercel, Heroku, Firebase, Netlify, Jupyter

Operating Systems: Linux (Arch, Debian), macOS, Windows | **Languages:** Fluent in Spanish and English

Networking: Port Forwarding, Reverse Proxy, Docker Networking, DNS Filtering, VPN, Static IPs, SMTP

HONORS & AWARDS:

University of Miami: Provost Honor Roll (Spring 2023); Dean's List (Spring 2023, Fall 2023); UHack Hackathon 2nd Place (Spring 2023) – [PlanetPath](#)