

# ADELINA FIGUEIRA

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## EDUCATION

### Simón Bolívar University

Bachelor of Science in Computer Engineering

Baruta, Estado Miranda, Venezuela

December 2025

- Thesis: Construction of a knowledge graph for reasoning about code in Large Language Models.
- Key Coursework: Data Structures and Algorithms, Object-Oriented Programming, Database Systems, Web Development, Software Engineering, Operating Systems and Functional Programming.

## WORK EXPERIENCE

### Brightcomms

Front-end Developer

Oct-Nov 2025

- Developed user-facing features using React Native, CSS and HTML.
- Worked with version control systems like Git to manage code changes, collaborate with team members, and maintain a clean and organized code base.
- Understood business requirements and translated them into technical requirements.

### Freelance

Freelance Writer

2018 - Present

- Developed strong research, analytical, and communication skills through diverse writing assignments.
- Managed multiple projects simultaneously, adhering to strict deadlines and client requirements.
- Cultivated an independent work ethic and strong self-discipline.

## SKILLS

- **Front End:** HTML/CSS, JavaScript, React, Angular, TypeScript, SASS, Tailwind, Bootstrap, Flutter, Streamlit.
- **Back End:** Python, Django, Flask, Node.js, Express, SQL, MongoDB, PostgreSQL, SQLite, SQLAlchemy, Neo4j.
- **Full Stack Tools:** Git, Firebase
- **Other Languages:** C#, Haskell, R, Kotlin, Assembly, C.
- **LLM Tools:** Hugging Face, LangChain, LangGraph, Vector Databases (Milvus).
- **LLM Platforms:** OpenAI (GPT-4o/3.5), Google (Gemini API).
- **Generative AI:** Prompt Engineering, RAG (Retrieval-Augmented Generation), LLM API Integration, Fine-Tuning, Multi-Modal Systems, Agent Frameworks.
- **Testing:** Jest, Selenium, Cucumber.
- **Game development engines:** Godot, Unity

## PROJECTS

- **AI-Driven 3D Room Designer** - Tech : **Javascript, Node.js, Express, Puppeteer, Docker.** Developed a specialized 3D interior design application that allows users to scrape real-world furniture products from e-commerce sites and instantly convert them into interactive 3D models for spatial planning, using Gemini. [View app](#)
- **Fashion Tracker** - Tech : **Python, Playwright, MongoDB, React, Node.js, Express, Vercel, Tailwind CSS.** Developed a high-performance web application designed to aggregate fashion product data from multiple sources, allowing users to track price history, filter items by brand/price, and subscribe to automated price-drop alerts. The system is fully automated using CI/CD workflows to ensure daily data freshness without manual intervention. [View app](#)
- **Cross-platform dating app (MVP)** - Tech : **Flutter, Firebase, Dart, Cloudinary.** Developed a high-performance, cross-platform social networking application using Flutter and Dart, integrated with Firebase for real-time data management and user authentication. The app facilitates user discovery through interest-based matching and secure profile management. [View app](#)
- **Food reservation management app** - Tech : **Firebase, JavaScript, React, Cloudinary.** Developed a web application designed to reduce food waste in restaurants by facilitating the real-time reservation and redistribution of surplus food. The platform streamlines the connection between food donors and recipients through a secure verification system. [View app](#)
- **Game Dynamics** - Tech: **GDScript.** Developed an intelligent agent system for a game environment, focusing on autonomous navigation and tactical decision-making in a 2D/3D space. The project involved implementing core AI algorithms to simulate realistic behavior for non-player characters (NPCs). [GitHub Repository](#)

- **Language Interpreter - Tech : TypeScript.** Implemented a custom language interpreter from the ground up using TypeScript and tsPEG. The project involves the full transformation pipeline of source code into executable logic, demonstrating deep knowledge of formal languages, grammars, and memory management. GitHub Repository
- **Wordle Game - Tech : Haskell.** Developed a terminal-based implementation of the Wordle game using pure functional programming principles. This project focuses on high-quality code through immutability, strong typing, and efficient state management within the Haskell IO monad. GitHub Repository
- **Pacman Game - Tech : Assembly.** Developed a fully functional retro-style Pac-Man game written entirely in x86 Assembly language. This project involved direct manipulation of hardware registers, video memory, and system interrupts to create a real-time interactive environment. GitHub Repository

## COURSES

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### Online Courses

- CAD101EN: Introduction to Cloud Development with HTML, CSS, and JavaScript by **IBM**
- LFS112x: Ethics in AI and Big Data by **The Linux Foundation**
- LFS110x: Business Considerations for 5G, IoT and AI by **The Linux Foundation**
- AI0101EN: AI for Everyone: Master the Basics by **IBM**

## LANGUAGES

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- Spanish : Native
- English : Bilingual proficiency