Kristian Leonel Benítez Pérez

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PROJECTS & EXPERIENCE

Full-Stack Development (ForzaPrime) | *Scalable web architecture & system design*   2026

- Design and develop complete system architectures, defining business logic and scalable structures for full-stack applications.
- Build backend services and **RESTful APIs** using Python, including authentication systems, middleware layers, and efficient request handling.
- Develop modern, responsive interfaces using **Astro**, **React**, **HTML**, **CSS**, and **Tailwind CSS**, optimized for performance and user experience.
- Apply **web security best practices** to mitigate vulnerabilities such as XSS, CSRF, and SQL injection.
- Configure server infrastructure and **reverse proxies** to optimize deployment and service communication.

Web Extension | *Open-source contribution*   2026

- Collaborated on an open-source project to visually improve the UNAM Faculty of Sciences website.

Portfolio Website | *Personal Web Identity*   2025

- A **high-performance** personal website built from scratch using **Astro**s island architecture.
- Implemented **Static Site Generation (SSG)** to deliver pre-rendered HTML, ensuring near-instant load times.
- Built a library of reusable components with **TypeScript** and **Tailwind** for maintainability and consistency.

Ray Tracing Engine | *Computer graphics rendering*   2025

- Developed a ray tracing engine capable of rendering geometric primitives and realistic material textures, achieving accurate lighting, reflections, and shading effects.
- Architected a scalable **layered system** that decouples rendering logic from the application layer, enabling seamless integration across multiple interfaces such as CLI tools and desktop applications.

Edge Detection | *Java Image Processing*   2025

- Digital image processing software built with **Java**, utilizing the Sobel Operator and multi-threading for performance.
- Implemented the **Sobel Operator** algorithm for precise edge detection.
- Utilized **Java Threads** to optimize processing speed via parallelism.
- Structured with **MVC architecture** to ensure code modularity and separation of concerns.

FixiBar | *Custom Hyprland Environment*   2024 – Present

- A highly customized environment for **Hyprland**, inspired by my cat "Fixi". Prioritizes low-level monitoring, minimalist aesthetics, and productivity.
- Implemented **asynchronous polling** in Python to prevent I/O blocking during widget updates.
- Developed custom scripts for comprehensive **system automation**.
- Designed a **modular architecture** to easily extend status bar functionality.
- Created custom desktop widgets and tools using **GTK**.

Remote Laboratory | *Lab Management Platform*   2023 – 2024

- Contributing to a web platform for **IIMAS**, enabling remote access for programming and simulating programmable circuits.
- Developing the frontend interface using **React** in collaboration with UI/UX designers.
- Building robust RESTful APIs with the backend team using **Django**.

Chess Game | *Desktop Application*   2022 – 2023

- Developed a multiplayer desktop chess game.

EDUCATION

National Autonomous University of Mexico (UNAM)   Mexico City, Mexico
B.S. in Computer Science (Faculty of Sciences)   In progress

Hackers Fight Club (HFC)
Member of Fourth HFC Generation   2025 – Present
- Active member of an ethical hacking community. Focused on cybersecurity research, and responsible disclosure.

UNAM - ENP6
Computer Specialist Technician Certified   2023 – 2024

IIMAS (UNAM)
Introduction to Android Development - Certified
- Technical course covering the fundamentals of native Android development with Kotlin and Android Studio.

ABOUT

Computer Science student focused on building optimized, maintainable, and scalable software solutions. I strongly believe that progress in technology is driven by continuous improvement, collaboration, and mutual support. Guided by the philosophy, *"If I have seen further it is by standing on the shoulders of Giants"* (Letter to Robert Hooke), I am deeply committed to learning from the community, building upon existing knowledge, and contributing back to help others grow.

SKILLS

Core Interests: Operating Systems & Automation, Modern Frontend & UI/UX, Mobile Development, Cybersecurity, Desktop Applications

Tech Stack: Python, Java, TypeScript, JavaScript, Astro, React, Django, Flask HTML/CSS, Tailwind CSS, SQL, GTK, Git, Linux, Motion, Bash

Soft Skills: Teamwork, Mentorship, Leadership, Problem-solving, Persistence, Self-taught Learner

Languages: Spanish (Native), English (Intermediate), French (Conversational)