DAVID ALEJANDRO CRUZ PALACIOS

FULL-STACK DEVELOPER & IT

Quito, Ecuador • +593 99 508 4284
davidcruzcv2005@gmail.com
davidcruz.vercel.app
github.com/aledash3 • linkedin.com/in/davidcruzp

EDUCATION

Universidad Politécnica Salesiana
Quito Campus • Computer Science Engineering
Currently in 7th Semester • 2023 – Present

Salesian Technical School "Don Bosco" Kennedy
Technical Secondary Education in Consumer Electronics • Graduated with Academic Honors
2023

TECHNICAL SKILLS

Languages
Python, JavaScript, TypeScript, Java, C++, SQL, PL/SQL, R

Web Development & Data
React, Next.js, FastAPI, Node.js, Express, Tailwind CSS, PostgreSQL, MongoDB, Redis, Celery, SQLAlchemy, REST APIs, gRPC

Deployment & Quality
Docker Compose, Linux, Nginx, Git, GitHub Actions, Pytest, Postman

Electronics & IT Support
ESP32, Arduino, Raspberry Pi, Cisco Packet Tracer, VirtualBox, IPv4/IPv6, serial protocols (I2C/SPI/UART), hardware & systems

AI & agents
Antigravity, Codex, and OpenCode: planning, scoped tasks, context management, and agent-assisted code review.

CERTIFICATIONS

- **GitHub Foundations (GH-900) (2026)**
  GitHub / Microsoft Learn • Verify
- **Frontend Development & Corporate Web Software (2026)**
  Nexorf
- **Full-Stack Software Development (2026)**
  Ministry of Public Health
- **IT Infrastructure Management & Support (2026)**
  Ministry of Public Health
- **Python Essentials 1 & 2 (2026)**
  Cisco Networking Academy • OpenEDG Python Institute
- **Programming and Data Analysis with R (2026)**
  Edutin Academy (120 hrs) • **Verify**
- **Leadership Excellence Certificate — CS Treasurer (2025)**
  IEEE Computer Society

ACHIEVEMENTS & COMPETITIONS

- **CTF Avíspate — Banco Pichincha (2026)**
  Participation in Banco Pichincha's cybersecurity competition.
- **Outstanding Presenter — UPS Open House (2026)**
  Technical showcase of road IoT telemetry ("Bachito") and Interactive Guide software.
- **Integrative Projects Presentation (2026)**
  Technical defense in Embedded Systems, Web Platforms, and Networking (UPS).
- **CTF WOMCY Latam — Cybersecurity (2025)**
  Hands-on challenges in web exploitation, cryptography, and digital forensics in a team.
- **IEEEXtreme 19.0 — Global Hackathon (2025)**
  Competitive programming and algorithmic problem solving during 24 continuous hours.
- **Organizer "Road to IEEEXtreme 19.0" (2025)**
  Coordinated preparatory training cycle on competitive programming & algorithms • IEEE CS.
- **Scientific Publication — UNESCO Chair (2023)**
  Co-authored research paper on IoT telemetry and electronic braking in Juventud y Ciencia Solidaria Journal.
- **2nd Place — Circuit League USFQ (2022)**
  Runner-up in inter-school electronic circuit design and assembly competition (IEEE CAS).

LANGUAGES

Spanish: Native.
English: B2 Professional (University accredited proficiency).

PROFESSIONAL PROFILE

Seventh-semester Computer Science Engineering student with hands-on experience in full-stack web development, network infrastructure automation, and IT support. Proficient with React, Next.js, FastAPI, PostgreSQL, and Docker, complemented by knowledge of embedded systems, electronics, and systems administration.

WORK EXPERIENCE

Universidad Politécnica Salesiana — Oct 2026 - Present
Research Assistant • Quito, Ecuador
- Contribute to LLM evaluation and PDF analysis software with Python and OpenRouter, comparing latency, tokens, and costs and reviewing page-referenced evidence.
- Work on an educational platform with Vue, Flask, PostgreSQL, and Redis: role-based workflows, question generation, and answer digitization with teacher review.

Ministry of Public Health (MSP) — Aug 2026 - Oct 2026
Software Development & IT Infrastructure Intern • Quito, Ecuador
- Architected and developed full-stack client-server web platforms for healthcare operations and medical scheduling using FastAPI, React, TypeScript, and PostgreSQL, implementing approval workflows, report generation, and data validation.
- Built a distributed system for network infrastructure inventory and auditing using Celery and Redis for background tasks, network sweep concurrency, ARP table inspection, and remote SSH telemetry.
- Deployed containerized services on Linux with Docker and Nginx reverse proxy; managed LAN addressing, preventive/corrective hardware maintenance, and workstation support across Windows and Linux.

Nexorf — Feb 2026 – Present
Frontend Developer • nexorf.com • **Quito, Ecuador**
- Provided continuous frontend maintenance and support for the enterprise web platform using Next.js, React, TypeScript, and Tailwind CSS, updating core UI modules.
- Updated and implemented sections for POS services, application catalog, websites, and e-commerce, while optimizing media assets with next/image.
- Collaborated via Jira tickets, feature branches, and Conventional Commits with Git, enforcing internal code quality standards.

Universidad Politécnica Salesiana — Apr 2025 – Present
Academic Peer Tutor • TEPES Program • Quito, Ecuador
- Conducted 20+ technical mentoring sessions for 22+ students in Object-Oriented Programming, Operating Systems Fundamentals, Databases (SQL), and Mathematics, including intensive Differential Calculus leveling courses.
- Created problem sets and study materials for exams and technical project defenses, providing personalized academic follow-up.

RELEVANT TECHNICAL PROJECTS

Dockerized Library Microservices System — Academic Project
github.com/aledash3/library-microservices-fastapi
FastAPI, PostgreSQL, Docker Compose, Docker Networking, Nginx, Linux
- Architected a modular system of three FastAPI microservices with PostgreSQL, isolated Docker virtual networks, persistent volumes, and Nginx reverse proxy routing. Automated CI via GitHub Actions.

AutoExpert AI: Automotive AI Assistant — Academic Project
github.com/aledash3/autoexpert-ai
React, TypeScript, FastAPI, PostgreSQL, SQLAlchemy, RAG, SSE
- Built a full-stack automotive assistant with React and FastAPI, combining parameterized PostgreSQL queries, structured RAG, typed tool calling, and streamed responses.

IoT Prototype: Pothole Detector "Bachito" — Computer Science Open House 2026
github.com/aledash3/Bachito
ESP32, C++, MERN Stack, AWS EC2, JSON, REST API
- Collaborative road-safety IoT project. Prototyped the sensor hardware circuitry and developed C++ firmware for the ESP32, transmitting road telemetry to a web platform with periodic data updates.

Other featured projects: Distributed Ecosystem (Python, gRPC, Streamlit) • Professional ToDo CLI (Python 3.13, SOLID) • Enterprise IPv6 Network with OSPFv3 (Cisco).

LEADERSHIP & MANAGEMENT

Salesian-Style Peer Tutoring Program (TEPES) — Apr 2025 – Jul 2026
Former Campus Coordinator • Universidad Politécnica Salesiana (UPS) - Quito Campus
- Reactivated the campus tutoring initiative, recruiting 50+ peer tutors and handling 100+ requests through custom technical marketing campaigns.
- Coordinated campus-wide tutoring initiatives across both Girón and Sur campuses, achieving 90 enrollments in intensive summer courses (~50 recurring attendees).

IEEE Computer Society — 2025 – 2026
Former Chapter Treasurer • Universidad Politécnica Salesiana (UPS) - Quito Campus
- Honored with the **Leadership Excellence Certificate (2025)** for financial management and sustainable self-funding of chapter initiatives.
- Co-organized the "Road to IEEEXtreme 19.0" technical workshop series and foundational cybersecurity leveling seminars.