

Sergio Axel Padierna Santana

Computer Systems Engineer | Querétaro, Querétaro
+52 446 315 5152 | axel@axelpadierna.com | www.linkedin.com/in/sergio-axel-padierna

PROFESSIONAL EXPERIENCE

Research Intern

École de technologie supérieure (Montreal, Canada – On-site)

August – December 2025

- Developed Python pipelines for Automatic Speech Recognition (ASR) and Natural Language Processing (NLP).
- Implemented automatic transcription, text cleaning, and semantic analysis of interviews using NLP techniques and sentiment analysis.
- Processed and structured experimental datasets (CSV), integrating biometric and textual metrics.
- Worked in an applied research environment following principles of modularity and reproducibility.

Software Engineering Intern

Universidad Politécnica de Querétaro (Querétaro, Mexico – On-site)

September – December 2024

- Re-engineered a university web system to optimize processes and improve user experience.
- Developed dynamic user interfaces using React, JSX, and PrimeReact.
- Implemented interactive tables, modals, and notification systems (Toast).
- Collaborated within development teams following software engineering best practices.

EDUCATION

Bachelor's Degree in Computer Systems Engineering

Universidad Politécnica de Querétaro (Mexico)

December 2025

- **Overall GPA:** 9.59 / 10
- **Relevant coursework:** Software Development, Databases, Computer Networks, Hardware Architecture, Software Engineering, Operating Systems, Foundations of Computer Science.
- **Honors and Scholarships:**
 - **Academic Excellence Scholarship** (entire program).
 - **Emerging Leaders in the Americas Program** – Government of Canada, research internship at École de technologie supérieure (ÉTS) (Fall 2025).
 - **“Embajadores” Scholarship** – Government of the State of Querétaro (Summer 2023).

LANGUAGES

- Spanish: Native
- English: C1 level (certified by the Language Center of Universidad Politécnica de Querétaro)

CERTIFICATIONS

Software Engineering

University of Texas at Austin, International Academy

(USA – On-site, 2023)

- Hands-on experience in software engineering, strong programming skills, and the ability to identify and define key concepts within the software engineering process.

Python Essentials 1 & 2

Cisco – Skills for All

(Online, 2023)

- Certification endorsed by Cisco and the OpenEDG Python Institute. Proficient in Python programming concepts, syntax, and semantics, with intermediate skills in modules, packages, exceptions, file handling, coding techniques, and object-oriented programming.

Introduction to Data Science

Cisco – Skills for All

(Online, 2023)

- Student-level credential demonstrating solid understanding of fundamental concepts in Data Analytics, Data Engineering, and Data Science.

TECHNICAL SKILLS

Programming Languages:

Python (NLP, ASR, data analysis), JavaScript, Java, C++, PHP

AI & Language Processing:

Applied NLP, ASR, semantic and sentiment analysis, ASR evaluation

Whisper (OpenAI), FunASR / SenseVoiceSmall, Vosk, spaCy, NLTK, SentenceTransformers, Pandas, JiWER, FFmpeg

Web Development:

- Frontend: HTML5, CSS3, JavaScript, React, PrimeReact, Responsive Design
- Backend: Laravel 10, MVC architecture, authentication, CRUD operations

Databases:

MySQL, SQL, database normalization

Tools & Platforms:

Git, GitHub, Visual Studio Code, PyCharm, Docker, ngrok, Render, Figma, Excel, Linux, Windows

SOFT SKILLS

Leadership, team management, critical and analytical thinking, problem-solving, time management, effective communication, teamwork, autonomy and continuous learning, adaptability to new environments and technologies.