Alejandro Chavez

Computer Science Engineer

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Professional Objective

Passionate about cybersecurity, artificial intelligence, and application development, with hands-on experience in collaborative projects and active participation on platforms like Hack The Box. International Baccalaureate graduate, fluent in English with basic knowledge of French.

Experience

IQVIA Internship   March 2024 – May 2024
- Internship in database support and administration.
- Automation and verification of weekly processes using ETL, SQL, and PowerShell.
- Designed and developed tailored queries to address unique client needs and ensure accurate data delivery.

SLB Internship   October 2024 – March 2025
- PowerPlatform developer intern.
- Designed and developed PowerApps solutions to streamline diesel usage tracking and asset management.
- Contributed to Dataverse data models, UX/UI components, and agile project management via Azure DevOps.

BlueHat Corp   April 2025 – July 2025
- Performed OSINT and web application penetration testing to assess exposure, reputational risks, and security posture.
- Supported cybersecurity governance efforts aligned with CGCI, including follow-up based on ISO/IEC 27001.

Personal Projects

Pixelia Project

Developed a video game sales app using SQL and C#, including inventory control, transaction handling, and UI.

Connect

Implemented redundancy protocols to enhance QoS, security, and fault tolerance in WAN and switch-level networks.

Vertex Capital

Created a banking website using React, Node.js, and cloud services. Integrated AI-based spending predictions.

Retrieval Augmented System

Built a RAG system to retrieve data from a custom corpus and generate concise, context-aware summaries.

Education

International Baccalaureate   2017 – 2020

Colegio 24 de Mayo

A globally recognized educational program offering a comprehensive and balanced education.

Computer Science Engineering   2021 – Present
Escuela Politécnica Nacional

    Acquired a strong foundation in programming, algorithm design, databases, networking, and cybersecurity principles.

Certifications

Network Defense Essentials
EC-Council
Issued: January 2025 – Expires: January 2028
Credential ID: ECC5837692041

Publications

"A Comprehensive Survey on Retrieval-Augmented Generation (RAG): Foundations, Architectures, and Implementation Practices" — In progress.
A systematic review covering the fundamentals of RAG systems, key components, implementation pipelines, applications in scientific research, and current challenges.

Languages and Skills

Programming: Python, Java, JavaScript, HTML, CSS
Tools: Kali Linux, SQL, React, Azure, PowerShell
Methodologies: Scrum, XP
Other: Fluent English, Basic French, Cisco Systems knowledge