FELIPE PIZARRO TOLEDO
Computer Science and Informatics Engineer

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EDUCATION

Universidad Católica del Norte — Coquimbo, CL
Bachelor of Science in Engineering, Civil Engineer in Computer Science — July 2024
Relevant Courses: Capstone Project at San Juan de Dios de Vicuña Hospital
Member of the Andean Youth Parliament, regional leader in technology

Liceo Politécnico — Ovalle, CL
First degree in Electronics Specialty — December 2015

EXPERIENCE

San Juan de Dios de Vicuña Hospital — Vicuña, Hybrid
Thesis Student — March 2024 – July 2024

- A monitoring system for key performance indicators was developed for the hospital's board, leveraging **Python** and **Vue.js**, leading to a **99.3%** increase in the operational efficiency of calculation and visualization processes.
- A new data visualization system was implemented, improving the clarity of reports for the management team.
- Collaborated with the SOME (Medical Statistical Orientation Service) team to identify data sources in various evaluation forms, increasing data traceability across different primary care programs.
- Automated indicator calculation processes, reducing processing time from 3 business days to 1 minute using **Data Science** tools in Python.
- Integrated a file upload system into a dedicated repository using **Google APIs**.
- Designed an algorithm that extracted and cleaned data from **Excel** templates and non-relational databases like **MongoDB** for use in complex calculations.

BLUMAR S.A — Punta Arenas, Remote
Intern — February 2023 – May 2023

- Contributed to the development team working on **Microsoft Power Apps** solutions, addressing performance issues across multiple applications, leading to a **25%** improvement in process speed in personnel management at various aquaculture centers.
- Developed a business movement tracking application that centralized distributed tools into a single management platform, integrating with a **SharePoint database**.

Computer World Ovalle — Ovalle, On-Site
Basic IT Instructor — March 2017 – February 2018

- Taught basic IT courses, covering topics from **Microsoft Office** platforms usage to basic programming principles.
- Worked with individuals of different ages and knowledge levels, using practical exercises and skills-based teaching to build strong computer literacy for everyday work.

ACTIVITIES

- Developed **Arduino-based** control devices for the management and monitoring of **aquaculture products**.
  - Integrated IoT sensors for real-time tracking and automated control.
- Passionate about the management of **Linux** operating systems, with the goal of developing a **GNU-based kernel** for IoT or low-capacity systems.
  - Focused on implementing **Zero Trust** security policies in IoT devices.
  - Designed prototypes to improve security and management of connected devices.

SKILLS AND INTERESTS

Technical: , Python (ETL), JavaScript, **C / C++ (OOP)**, Rust, Docker, GraphQL, **Relational databases (PostgreSQL, MySQL, SQL Server, SQLite)** and non-relational (MongoDB), TypeScript (Basic), **C# Blazor .NET (Basic), Wireshark, WSO2 user managment server, NMAP, Maltego, Power BI (Basic)**.
Frameworks: NestJS (Code First), **Next.js**, **React**, Expressjs, Node.js, Jupyter (Python data analysis), **Linux for cybersecurity KALI LINUX and servers**.
Languages: English B2 (EFSET Certification).
Interests:

- I am currently building a new portfolio to showcase my professional journey, skills, and projects. This platform will feature detailed examples of my work in software development, machine learning, and system optimization, along with my passion for creating innovative solutions.
- Researching computer vision systems and machine learning for early detection of wildfires using satellite data.
- Researching Zero Trust Architecture to protect organizational systems against internal and external attacks.
- Inventory management project for hospital pharmacies and medical supplies.
- Home automation project using IoT to solve safety issues for elderly environments, such as fire detection and elevated CO2 or carbon monoxide levels.