

Mr. JUAN CARLOS DERGÁN FEBRES

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Associate Degree: Software Experience & Electronic Associate Degree.
Post Graduate: Data Networking at UPC – Lucent Technologies.
Born : july 04, 1973.

I. PROFESSIONAL SUMMARY.-

To improve our skills, we need to review and research fundamental disciplines to consolidate our understanding (science, physics, electricity, software, etc.). In my case, sometimes I don't have the ideal environment for this, but we can use our relationships to achieve it..

I've developed a systemic-thinking approach throughout my career thanks to my experience in software and electronics, which allowed me, in many cases to infer and approach complex processes holistically. "We can't see all panoramas," but we can strive for better results by fixing and triggering bootstrap solutions, methodologies, and behaviors in relation to any implicated vertical processes. I have worked in many markets: electronic makers, support CAS, automation, telecom, transport, and logistics. However, in recent years, I have primarily focused on full-stack software, desktop, and mobile programming, reinforced by critical logic algorithms, conventional math analysis, and many issues required by the IT industry.

Maybe the most relevant cases in my career were developing middleware draft solutions for critical cases with economic viability, such as renumbering the thousands of mobile phones or the replacement of M2M/IoT devices for new topologies device location, and many other experiences like queues, etc.; and lately, algorithms for financial analysis (NY stocks exchange) using AI (fifo algorithms, middleware, searches, etc.).

Better solutions are possible with a strong team, a clear roadmap, and continuous learning 'over the wheel' as the magic key; If you find value in what I bring I'll be happy to be part to contribute to your team (♣).

II. Proficient SKILLS and EXPERIENCES: (experiences based on testing, scrum stages.)

1. Software (microservices/laaS,SaaS): very strong proficient in math-logical algorithms.

Resolution projects with libraries and open APIs, troubleshooting issues on time, and a constant actualization board. Anatomy/Knowledge in OOPs, lambda expressions, middleware: python (sci/math), JavaScript, Android Java/kotlin gradle (understanding android-embedded architecture (ipc, test Rf/Batt signal for mobiles, basic phone states, stacks tcp/ip, peripheral sensors, etc); embedded micropython, C/C++(g++/gcc), vb60(com+), Excel/vba, comprehensive experience vb/c#.net, dart/flutter. fullStack(serverless AWS-GCP): flask/bootleJS, Nodejs/Express, IIS, and frontEnd: Html/css (xml/ json/ yaml), React+Vitejs, jQuery, bootstrap, p5.js, classic asp for responsive web design, handling asynchronous requests (AJAX, fetch) and RESTful APIs with JS/ES6, map tools(google,leaflet).

3. IDEs, SDKs & FrameWorks:

O.S. : Linux rasbian, ubuntu, debian, android, windows(.dlls, .exe, .ini, .files), dockers container, OS-VM.

FronEND: html/css, vainillaJs/ typescript, reactjs-vite, pug(python).

BackEND: nodejs, expressJs, react, socket.io, python flask, webhooks, com+dll, asp.

Desktop: VB60, micropython, JS, Android-java-kotlin, Java-8/j2me, java11, VB/C#.net, 8/16bits c/c++(gcc/clang).

DBs: Ms-SQL, MySQL, PostgreSQL, MongoDB, SQLite, FireBase, and so on.

IDEs: VSCode, VStudio, Eclipse, NetBeans, AndroidStudio, jupyter Ntbook, pyCharm, IntelliJ, Cursor, PostMan, GitHub, Mojo frmwrk instead of c/c++.

Modules: conda, Tkinter, pyQT5, Kivy, BeautifulSoup, Scrapy, Matplotlib, Panda, NumPy, twilio, etc.

Team Tools(cloud): GitHub, Repplit, DeepNote, Discord, slack, etc.

Embedded-Dev: Smartphone/ tablets/ smartwears/ SBC(SingleBoardComputer), RaspberryPi/family, Espressif/ESP32, Ai-Thinker, texas/MSP430, arduino, nfr51xx/nordic, many sensors, boards, power supplies, handheld kits.

SDK Electronic Tools: Eagle pcb, RfSmart Studio, Proteus, platformIO, Node-RED, etc.

Instrument-Tools : A/D Multimeter, Oscilloscope, Spectrum analyzer, Func(Generator), NetAnalyzer, SQE/RSS,etc

2. Ai Tools & Supports: Manage software tools for Ai in python from basic to more specialist packages:

BasicPkgs: NumPy, SciPy, Pandas, Matplotlib. (large experience statistical, visualization).

Fundamental Pkgs: Skit-Learn, Keras for samples, Tensorflow(large experience), PyTorch(minimal experience).

Orquestation Tools: HuggingFace, LangChain(large experience extention RAG, orchestration).

Publication Dashboard: Flask, streamlit/Gradio(experience), HuggingFace Cloud, SageMaker(minimal aws use).

Automatizatin Agents Tools: n8n, make.com, chatbase, ottereasy way to automatizacion process.(for testing and easy)

VibeCoding: many tools such as Gemini-Cli, Claude, CodeWhisper, CodiumAi, Copilot, etc.; bolt-frmwrk; appypie for web pages; local VibeCoding such as llama3.2xx; research: komo; security: gamma; etc. (hands-on experience).
Ai SBCs: For Ai support on Edge Computing, using small models such as deepseek-r1:1.5b, LLaVA 1.xx on the Raspberry Pi family to recognize regular and irregular objects, and local assistant chatbots (pttys3, gTTS).
iA-Chatbots: Local engines such as pttys3, with local models.

3. Very understanding & adapting to new electronic technologies, tools/utilities for hardware connection algorithms, use android frmwrk base to Connect devices for domestic/industrial automatization, involved with most used technologies, tcp/ip stack(http,udp,socket), pid loop, bluetooth(ble-5), uart, spi, rf, USB, i2c, can, rf measurement SQR/RSSI signals, mqtt, CoAP, gsm/gprs, and some useful mesh topologies net.

4. Dev-kits, SBCs can be like a complete computer with DB, connectivity, and so on. I developed many things in IoT Automation, using tiny embedded build systems, peripherals, edge interfaces, i/o circuitry controllers, and mobile/bridge/routing network extensions, terminal POS, assistants like Alexa/Google Voice, bots, IoT, and AI; with good support of instrumentation tools (oscilloscopes, spectrum analyzers, etc.).

5. Advisor in Next-Generation Tech Project Management, with a basic, comprehensive understanding of KPIs, Big O notation for performance, and statistical analysis in financial markets as well.

III. WORK HISTORY and ACHIEVEMENTS:

Currently, part of my time, as an enthusiastic R&D entrepreneur, I'm always testing LLMs/frameworks with python tools (OpenCV/Yolo for object detection). TinyML on Tiny SBCs edge computers with isolated agent models.

1.- Freelancer software and hardware services for local companies 2022 – 2024 (join venture):

Currently in test, for small high-frequency stand-alone platform with private and public APIs such as Yahoo Finance & MT5 with the lowest viable amount of time variables and financial value analysis; the objective is to make decisions with a correct bias (no outliers) using AI for short- and medium-term analysis of investment stocks (NY & Nasdaq Exchanges). The development contemplates the use of libraries and languages such as Python (c/c++), and integration with MT5, spreadsheets, and proprietary communication methods (Windows and Linux OS, client/server).

2.- BW2Technologies AG – Switzerland - 2022:

As a software developer for financial platform ERP BW2 using Business Object architecture with Microsoft Visual Studio 2019 IDE. VB.NET/C#, most of the time refactoring code (14 hrs/day). <https://www.bw2.com/>

- **function:** develop, refactor and support the flow of business using the APIs in VB.Net for customers' demands, one of my contributions was to make a more efficient algorithm(big O).

3. MicLab Soluciones / Miclab IT, July 2010 - 2020:

Advisor and Technical Lead, IT in software, m2m/IoT, MVPs draft and project overviews.

- Manage APIs tools for GIS projects, maps, and interactive wepages, the challenge of using low memory for devices on the side of the customers gives many advantages, watchdog systems, route maps, smart devices, etc.
- Dispatch fleet of vehicles, I proposed using Android devices instead of AVL devices creating more services for customers, increasing the invoicing (tcp/udp servers, web dashboard, position/speed, times-lap, etc).
- Drive an analysis of all risks to convert standard security devices/controllers systems, into specific smart systems/alarms with more options for microelectronic devices for defined purposes in a defined environment. I proposed to make external electronic interfaces with Android architecture devices (service background, sms, phone calls, video, localizations/lbs, signal/strength, battery)for continues displacement objects.
- In combination with new features with home assistants like Alexa, we make a simple generic discrete/analog i/o-control, connected by Bluetooth, wifi, and async serial interfaces, with SBCs for generic propose.
- Complete framework for Industry, from edge computer to cloud/db server solution telemetry (displacement sensors, strengths, optical, Rf comm, etc).

4. NEXTEL DEL PERU (Subsidiary of NII Holdings) August 2003 - April 2008

Re-search Data developer making MVPs for commercial Area. My Most outstanding experiences:

Solutions with smartPhs m2m, using j2me(Java), making interfaces over scanner, printers, pos, self-service machine, SBCs, plcs, my function was to begin quickly draft of blueprint to make sales.

- A great jobs was to connect a coffee machine and a roll-slot casino machine with the phone to get the bills.
- **BackEnd** Software Support for locating GPS(AVL), triangulation for fleet and vehicles.
- **Recognition** for proposing an economical solution for re-numbering cross-fleet motorola radio-phones.

5. NEXTEL DEL PERU (Subsidiary of NII Holdings) October 2000 - August 2003

Setting services (FulFillment Department) for Motorola iDEN and Radio Trunking Devices.

Projects Involved (⊕ rf = radio frequency)

- Configuring and testing platform radio/phone/data for all type of handheld Motorola devices.

6. ASC – COSAPI DATA S.A - EPSON. January 1998 - January 2000

Laboratory, Senior-3 tech-support specialist, notebooks, printers, scanners, data displays, power units, and programming drivers for computer machines(Unix BSD, linux) and coaching instruct-Caracas Venezuela/Lima Perú.

IV. EDUCATION:

- **Lucent Technologies – UPC (Lima, Peruvian University for Science).**

Post-Graduate Degree in Data Networking November 2001.

Frame Relay, VPN, VoIP, Bridging, Switching, Routing, Fiber Optic, H.263/264, others.

- **Associate degree for Electronic and Computer profile – CIBERTEC, Lima, Peru (+3yrs 1996).**

- **Advanced English Language.** (Read,write and speak with a good understanding of Technical English).

- Leadership Nextel July 2007 Lima Peru.

- Leadership and Values Integration for Job.

- Related with terminologies for Computer and Electronic environments.

V - COURSES UPDATES & CERTIFICATIONS:

- OpenCV, Yolo, DataScience & AI.(extensive self-learning hands-on)

- Android/Kotlin as Topic Master (<https://hyperskill.org/>)

- Solid knowledge of fundamental high-math, boolean, and discrete algebra. (<https://projecteuler.net/>).

- Introduction to Python, Data Camp - 2020/2022 (with certificate).

- Introduction to Data Science in Python, Data Camp – 2020/2022 (with certificate).

- The Our of Code, ComputerScience , processing.org, code.org - 2020 (with certificate).

- Programming Mobile Applications for Android Handheld Systems, Coursera - 2014 (without Certificate)

- Software Development Methodologies in ANDROID, UNI - 2012 (without Certificate)

- Development course for Microchip dsPIC 30 / 33F and PIC18F Lima Peru - 2011 (with certificate)

- DotNet, C # .net and VB.net , UNI - Lima Peru - 2010 (without certificate)

- Blackberry Programming and Support, Nextel Lima Peru - April 2007 (with certificate)

- Java update course, Nextel Lima Peru - April 2004

- IBM Course in Java for correct use of APIs for Motorola - phones software. (certificate 2004).

- Support Engineer & LaserJet Printing Engineering: 40XX, 5000, 5si, 5SI, 8000, 240, 800 and 8100, HP PERÚ - August 2000 (with certificate)

- PC, Notebooks and Servers, ACER PERU Lima Peru - December 1999 (with certificate)

- PC, Notebooks and Servers, ACER PERU Lima Peru - October 1998 (with certificate)

- Microsoft Office 97, Visual Basic, Linux, UNI Lima Peru April - November 1997.

- EPSON Inkjet, Matrix and Laser Printers, Caracas VENEZUELA June 1996.

- Speaker, Colloquium of Electrical-Electronic Studies, Pontificia Universidad Católica del Perú IEEE.

- EPSON Inkjet, Matrix and Laser Printers, Caracas VENEZUELA June 1995.

- Maintenance and Configuring Computer Equipment of CIBERTEC Institute.

- Since childhood, I've been directly involved with devices such as walkie-talkies, telephones, mechanical motors,etc

REFERENCES:

1. Copy of Recognition Letter from the Operational Fulfillment Area of Nextel Peru (2001).
2. Copy of Recognition Letter from the President of Nextel Peru (NII Holdings), Ing. Miguel Rivera, 2007. (<https://www.upc.edu.pe/en/nosotros/autoridades-upc/consejo-consultivo/>).
3. Greeting and Recommendation Letter from the Commercial Director of Nextel & NII Holdings 2002, Mag. Luis Deza (<https://pe.linkedin.com/in/luisdeza>).
4. Luis M. Palacios. (<https://pe.linkedin.com/in/luis-miguel-palacios-delgado-38a22520>).

Fun Experience!:

