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Abstract

Tech Executive & Principal Cloud Architect with **25+ years of experience** orchestrating digital transformation, enterprise architecture, and full-stack technical implementation. Proven track record as **CTO** and **Tech Lead**, specializing in high-availability **AWS/Multi-Cloud** ecosystems, **AI Strategy (LLM integration & MLOps)**, and **Cybersecurity** for mission-critical systems.

Hands-on expert in DevOps culture and core development (**Java, .NET, Python, C++**). Entrepreneurial mindset with a focus on R&D, team leadership, and aligning technology with business growth. **100% Remote-ready for international roles, fully compatible with US East Coast and European time zones.**

Languages: **Bilingual in Spanish and English** (Full professional proficiency for global environments).

Basque: Intermediate.

Professional Experience - Summary

(See comprehensive portfolio below for details)

- **2025-03 – Present: WISESOLUTIONS – Independent Senior Developer & Architect** AI/LLM (Large Language Model) Development, LangChain, MCP (Model Context Protocol), LocalStack, LLM-centric rapid prototyping (AI-driven development, aka “vibe coding”)
- **2024-05 – 2025-03: SAVEFAMILY – CTO**. E-commerce, WordPress, AWS, Smartwatch, Shopify, Android, AI, Chatbot, ChatGPT, GenAI, LLM, NLP, NFC payments, SIM Card telephony, Laravel.
- **2020-01 – 2023-09: ORONA – Head of Architecture & Enterprise Architect** IT strategic plan, TOGAF, AWS, DevOps, IoT, CMDB, Docker, Lambdas, serverless, SonarQube
- **2019-01 – 2020-01: SOLMICRO, Zucchetti Spain – Solution IT Architect and Developer** Azure Cloud, C#, Time Series, OPC
- **2014-01 – 2019-01: ISETIC – CTO & Founding Engineer (Hands-on / 10-person team)**: AWS, Java, Dynamo, Kinesis, RDS, Modbus
- **2010-01 – 2013-02: DIVISOFT – CTO & Chief Architect (Hands-on)**, Led a 20-member team in software architecture and core development (Java, ERP)
- **2007-02 – 2009-10: EXTERNAL – Automation Software Analyst and Developer**; researcher, consultant, coordinator and support in big datacenter (Eroski). Python/Linux/AIX/Novell
- **2005-05 – 2007-02: PANDA SOFTWARE – Software Development** (architecture, design, and programming) of security software for Linux: C/C++/Python/firewall and intrusion detection system IPS/Linux Kernel
- **2004-11 – 2005-05: ABARTIA TEAM – Software development, communications, networking and security Area Manager** (3 members). Analyst, programmer and consultant. Linux, PHP
- **2002-01 – 2003-12: CAPTIVA SECURITY AND SOLUTIONS – Researcher, Cybersecurity Software Developer** and System Administrator. C/C++/Linux/TCPIP
- **2000-01 – 2004-12: UNIVERSITY OF THE BASQUE COUNTRY (UPV/EHU) – Researcher in Telematics Engineering Group**: C/C++/Python, Linux, cybersecurity, TCPIP

Education

1994-2000 - Master of Science Degree in Telecommunications Engineering (6-year program) (specialty telematics) - University of the Basque Country (UPV/EHU).

Other studies:

- **2022** - JST349 **DevOps** Foundation OT11831.01
- **2020** - Cybersecurity awareness
- **2014** - **Business management** training (DEMA)
- **2011** - Executive **Coaching** program: emotional intelligence, business strategy, leadership, motivation, high performance team management, market and customer orientation (Leimotive holding 2011-03 2011-12)
- **2009** - Microsoft SQL **Server Course** At San Roque School (Programming, administration, transact SQL) (215 hours)
- **2007** - Network Management Tool **CA Unicenter** Certification Course (80 hours)

Detailed Professional Experience

2025-03 – Present: WiseSolutions (Personal Brand)

Independent Senior Developer & Architect

- **AI/LLM Strategic Consulting:** Leading the architecture and implementation of LLM-based solutions, utilizing LangChain, MCP (Model Context Protocol), and LocalStack for cloud-native workflows.
- **Rapid Prototyping:** Specialized in LLM-centric prototyping (AI-driven development, aka “vibe coding”) to accelerate technical strategy and deployment.
- **Open Source Tooling:** Developer of **immich-autotag**, a Python utility for automated metadata management in self-hosted ecosystems.
 - Focus: Python development, Docker containerization, and API-based workflow automation.
 - Demonstrates hands-on capability in building production-ready utilities and community-driven software.

2024-05 – 2025-03: SaveFamily

CTO: Tech Lead, project management (internal and external). 6-8-member team.

- **Ecommerce:** WordPress, WooCommerce, Shopify, ChatGPT, AI, ChatBot
- **Smartwatch Apps software development:** Android, Firmware, Unity, GenAI, LLM, NLP, TTS, STT, Amazon Poly, NFC payments, Tensorflow
- **Internal Platform:** Portal software development (PHP, Symfony, Laravel, API, Integrations, Locker)
- **Proprietary Telephone Service:** Subscription process automation (PHP, Python)
- **Journey to Cloud:** AWS, Landing, Control Tower, FinOps, Security, Inventories
- **DevSecOps and DevOps:** Practices (Ansible, GitHub, Jira, Confluence)

2020-01 – 2023-09: Orona - Gipuzkoa, Spain

<https://www.orona-group.com/es-es/>

Head of Architecture & Enterprise Architect Founding of the Corporate IT Architecture Department.

Projects:

- **IT strategic plan, TOGAF**
- **IoT Project** - Manager, Cloud Platform Development for Lifting Business (AWS: IoT, Lambda, SNS, SQS, API Gateway, WAF, Couchdb, TypeScript...)

- **Journey to Cloud Project** AWS, Organizations, foundation, Terraform
- **DevOps Project**: Agile methodologies, Jira, Azure DevOps, Jenkins, Sonar
- **Technical software development offices coordination**
- **CMDB Project**
- **Software integration architecture project** (API, OpenAPI, stream, broker, queues...)
- **Software execution architecture Project** (Docker, Serverless, microservices, etc.)

2019-01 – 2020-01: Solmicro - Zucchetti Spain - Biscay, Spain

<https://www.solmicro.com/>

Solution IT Architect and Developer: Cloud platform development for Smart Industry in Microsoft Cloud (Azure Cloud, C#, .NET Core, Docker, Vue, Typescript, Angular, OPC, gRPC, Azure Functions, Storage, SQL Database, Time Series Insights, Virtual Machines, Event Grid, DevOps...).

2014-01 – 2019-01: ISETIC - Biscay, Spain

<http://www.isetic.com>

CTO & Founding Engineer (Hands-on / 10-person team)

Tech Lead for platform architecture, design and development of Zeus, first **low cost** and **flat rate** monitoring and automation service for multiple businesses: Information systems, business processes, industrial processes and the internet of things.

Technologies: Cloud computing, SaaS, Big Data, Orchestration Monitoring, **AWS, Java**, Spring, SpringBoot, IaC, Ansible, Terraform, Docker, containers, LXC, AWS Lambda functions, microservices, Python, AI/ML, Nagios, Modbus, OPC, Vue, Angular, JavaScript, TypeScript, Node.js, Swagger, Hadoop, HortonWorks, Hive, Pig, Proxmox, Kinesis, ECS, S3, RDS, Lambda, EC2, Dynamo, VPC, Linux LUKS, Boto3, Pentaho ETL, Xen, Qemu, Fiware, OpenWeatherMap, Accounting software development, Energy management, solar farms

About Zeus:

Zeus provides monitoring and task automation services through an innovative and disruptive model on market, supported by a “LOW COST” and “FLAT RATE” business model, where customers do not need to invest and only pay a monthly fee for the service.

It monitors and automates “Information Systems”, “Business Processes”, “Industrial Processes” and “Internet of Things”.

Able to monitor and automate any element or process, thanks to the highly qualified ISETIC team and its revolutionary new Cloud Computing Technology Platform.

2013-02 – 2019-01: WISESOLUTIONS - Biscay, Spain

<http://www.wisesolutions.es>

Part-time freelance software developer for several customers from WiseSolutions personal Brand

IT architectures design and solutions for enterprises.

- **KimetAnimator Project** (kimetsport.com): Design and development of backend for sports training graphic application. Modular JavaScript architecture. (Technologies: PHP, JavaScript).
- **Gas consumption prediction system project** (Naturgas): integration architecture design

2010-01 – 2013-02: DIVISOFT, SYGES GROUP (Biscay, Spain)

<http://www.divisoft.es/>

<http://www.leimotivholding.com/>

CTO & Chief Architect (Hands-on), Led a 20-member team in software architecture and core development (Java, ERP)

- **Provision project:** Design, **architecture**, development, research, innovation, management and **team leading** (10-20 members) for creating **from scratch** an **application development platform** and building an online desktop and complete flows oriented ERP using this architecture. Technologies: Java, GWT, SMARTGWT, Hibernate, Jenkins, MySQL, Postgres, Python. This will be used by Leimotive holding and offered customers. Remarkable modules:
 - **ORM:** Client/server, configurable, dynamic, abstract
 - **UI:** Dynamic building of stored views perfectly coupled to ORM
 - **UI designer:** RAD and WYSIWYG tool for developers.
 - **BPM** (process engine): organization management oriented (Quartz, jBPM...)
 - **Modular** architecture: ERP like live module setup and integration
 - **Multilanguage calculator** (Java, JavaScript, custom...): ORM and UI integrated; abstract, no compilations needed. (ANTLR, Java, JavaScript embedded)
 - **VFS** (virtual filesystem)
 - Other core platform modules (message routing, alerts, revisionable entities, third party products wrapper as Neetmeeting BigBlueButton, Zimbra collaboration and Nuxeo document management...)
 - Build from scratch a new **development team** and **quality team** with tools and procedures.
 - Develop **strategic plan** for research and development and innovation area.
 - Also participating as a consultant building from scratch the **new datacenter** for Leimotive Holding. (Communications, services, virtualization...)
 - **Executive coaching program:** emotional intelligence, business strategy, leadership, motivation, high performance team management, market and customer orientation

2007-02 – 2010-01: EXTERNAL, GRUPO VERSIA - Biscay, Spain

<http://www.grupoversia.com>

Automation software analyst and developer; researcher, consultant, coordinator and support in big datacenter (Eroski). Innovation

Collaboration with multiple environments (OS Linux, Middleware Web, Network Management, Consulting). Customer: Eroski Group. Data center corporate machines.

Projects:

- **Automation projects (Development):** Architecture, analysis, design, programming and coordination:
 - **EROSCAN:** Development of massively parallel generic data collection and unattended operation scanner for Linux and AIX machines Scanner
 - **AUTOAUDIT:** Architecture for automatic data collection, processing and audit reports presentation for Linux and AIX machines
 - **Automated handling of Novell errors copies:** Capturing information, analysis, detection and automated error reporting. Statistics. Integration with CA Unicenter incident tracker
 - **Virtual system administration operator:** Architecture and software development to replace human operators in mechanical tasks.
- **Development** projects:
 - **Development of network management agents** for Linux and AIX: inventory, alarms and performance. CA Unicenter integration.
 - **RENOHA project: High availability** active-passive machines **script development**.
 - **ALARMFIRESTAT project: postmortem analysis** agent development
 - **Universal boot CD** for total and partial **disaster recovery**

- **Consulting** projects:
 - **GEOCUMA**: Internal **consultancy** to meet the needs of **process management, integrated management and BI**
 - **ARQUITIL**: Architecture and product selection for **ITIL** implementation for Versia and clients.
- **Application and database migration**
- **Support** projects:
 - **GEMINIS project**: Participation and support in **migration** of a complete **data center**.
 - **RENOSAN project**: Participation and support of system migration storage **cabinets**

Architectures: 368, x86_64, IA64

Hardware: IBM, Intel, Blade, Bull, Novascale, Raritan, fiber optic cabinets (Hitachi, EMC), QLogic

OS: Linux, AIX, Solaris

Tools: CA Unicenter, Nagios, LDAP, sar, backups (faubackup, Legato...), document management (mydms...), code repository (Subversion, Trac...), system-imager, snoopy, SQL Server, Tomcat, IAS, OC4J, MicroStrategy, Liferay, PHP, Apache, MySQL, Oracle, DB2, GoogleSearch, Jabber, virtualization, Xen, QEMU, Linux Virtual Server; chroots, DNS Bind, sar, Heartbeat, SNMP, print queues, training on development issues, OpenERP, Pentaho

Skills: Python, Bash script, package building, disaster recovery

Certification course: Network Management Tool CA Unicenter

2005-01 – 2007-02: PANDA SOFTWARE INTERNATIONAL - Bilbao, Spain

<http://www.pandasoftware.es/>

Development (architecture, design, and programming) of security software for Linux: firewall and IDS, C/C++/Python.

- **Project Desktop Secure for Linux** antivirus for Linux Desktop. Author of ALL network functions.
 - **Firewall** module: Advanced **application detection** module for Linux firewall
 - Network **intrusion detection and prevention** module (IPS)
 - Other network related modules (Library to send mail via SMTP...)
- **Skills:**
 - TCP/IP, C and C++, python, Snort, IPQ, Linux Kernel, Python, iptables, GTK
 - Software Optimization in Linux. Performance studies. (OProfile, gprof, vmstat...)
 - Concurrent programming, threads, sockets.

2004-01 – 2005-01: ABARTIA TEAM - Bilbao, Spain

<http://www.abartiateam.com/>

Communications, software development, networking and security **area manager** (3-person team). Analyst, programmer and consultant.

- **Management:** Management of software projects
 - PHP + MySQL web projects (e.g. <http://www.viajesargonauta.com/>)
- **Customer and relations:**
 - Dealing with customers.
 - Technical support to sales people.
 - Client needs identification
 - Attendance at technology conferences and relationships with companies for cooperation on larger projects.
- **Training:**
 - Taught seminar for SAP programming in Visual Basic. (NSI)

- **Consulting:**
 - Distributed backup system for the IBM AS400
 - Distributed backup system among distant offices using cheap solution based on Linux (Abaria Team)
 - Computing infrastructure migration to Linux projects.
- **Development:**
 - Web positioning monitoring system (Java, Perl, SOAP, Google API)
- **Strategy:**
 - Design of Linux-based products for SMEs
- **Communication projects:**
 - Design and implementation of networks.
 - Networking, wireless, PPTP tunnels, Openvpn, routers.
- **Systems:**
 - Implementation and management of infrastructure.
 - CRM, Bug Tracker, CVS, development tools...

2000-01 – 2005-12: GRUGEIN S.L. - Bilbao, Spain

<http://www.grugein.com/>

Freelance IT Consultant. Network deployment, training and infrastructure.

- Advice on purchase and procurement of IT services
- Deployment of communications infrastructure
- Systems management, remote maintenance and troubleshooting
- Training companies. Workshops on networking, Internet, intranet, utility, security, communications.

2000-01 – 2004-01: UNIVERSITY OF THE BASQUE COUNTRY (UPV/EHU) - Bilbao, Spain

<http://det.bi.ehu.es/Bilbao>

Researcher in Telematics Engineering Group of the department of electronics and telecommunication.
(C/C++/Linux/cybersecurity/TCPIP)

- **Research:**
 - Participation as a researcher in several R&D projects related to issues of intrusion detection and network security.
- **Teaching:**
 - Seminars on programming. (JAVA, C++...)
- **Systems and network administration:**
 - Local and Network Management UNIX/Windows.
 - Management tools and network monitoring (Nagios, Snort...)
- **Development:**
 - Programming with cryptographic functions.
 - IPQ and LIBPCAP programming for traffic analysis
 - Web Application Programming in Java.
 - Integration of security tools

Project: "Distributed model for intrusion detection in large networks."

Research project funded by the Basque Government through the program INTEK 2000. The project though mainly theoretical, had a practical component was to develop a prototype intrusion detection sensor. For this purpose an OSKit kernel development kit was used, on which a version of Snort IDS software was adapted.

Project: Telematic Network Simulator

Research project for creating a software simulator of traffic networks. The simulator receives the definition of a network based on a description of topological and statistical parameters of its elements and is able to find through simulation mean values, points of congestion, etc.

Electronics project: opto-coupled amplifier

Electronic project intended to amplify a signal of certain frequency and dynamic range without physical contact between two electronic components using low cost components such as resistors and LED diodes.

Master's Thesis: SpyNet. Architecture and design of distributed system for capture and correlated analysis of network traffic based on a programmable network sensor capable of local capture and analysis

The project sought to build a complex architecture over network sensor with programmable capture capabilities and traffic analysis as ADVISER. There was an extensive study on network technologies and existing frameworks such as CORBA and XMLRPC to finally define the interfaces and elements of that architecture. We implemented a prototype of it on the prototype ADVISER and created several tools in terminal mode (ncurses) and web (CGI, PHP, JAVA) for data presentation.

Project: Migration to open platform of the tools used in practices and mathematical works of signals and systems department.

This study aimed to test the feasibility of replacing MathLab commercial tools with other open source tools as octave. Finally it was concluded that this was possible. They math libraries were extended wherever necessary.

Project: math library in C++ templates for generic algebra without loss of accuracy by truncation, rounding or ill-conditioned systems.

We conducted a library capable of solving math problems without loss of accuracy for representation of floating point numbers.

Development of artificial intelligence framework for games Engine development for games like checkers or chess.

2002-01 – 2003-12: CAPTIVA SECURITY AND SOLUTIONS S.L. - Biscay, Spain

<http://www.captiva-sys.es/>

Researcher, cybersecurity software developer and system administrator:

- Researcher on development projects, integration and research.
- Designer and developer of applications on different platforms and environments (C/C++, Visual Basic, .Net, Python, Mono, Bash script, perl, etc.).
- Web designer and database administrator in open and commercial platforms (MySQL, PostgreSQL...)
- Systems Administrator: Windows (NT/2000/XP/2003) and Unix (Linux - Debian/RedHat/Ubuntu, FreeBSD, Solaris 8/9)

Adviser Project (Administration Diagnosis and Intelligent Verification in Network Services)

Three-year project funded by the INTEK 2002 in collaboration with the Engineering School of Bilbao.

Project was intended to obtain pre-competitive prototype architecture based on generic network sensor from passive listening able to determine different traffic problems or make measurements. Designed to make products to measure/ensure quality of service in networks or provide security services such as IDS, antivirus, etc.

Sensor was concluded with XML configurable rules, written in C and integrated with other modules to provide

further functionality, such as NetFlow collector (also in C) and web application in PHP to display graphical results from RRD database. Tasks undertaken in the project:

- Architectural design and various sensor modules
- Design of communication protocol between sensor and collector
- Web Application Development in PHP for graphics rendering RRD database
- Implementation and testing of prototype in real clients (Sarenet and Punto Radio)
- Development of high level tools for integration of network security products as ARGUS, ADVISER or NTOP.

Project: kiosk platform for mobile content distribution Xonae

Consulting project for integrating components in touch-screen kiosk platform for mobile content distribution for establishments.

- Development of COM component in Visual Basic for simple communication with purse Münzprüfer WH EMP 500 via series Dietmar Trenner GmbH, after study of communication protocol of private enforcement by some reverse engineering.
- Developing COM communication component for communicating with Jofemar note reader.
- Study system and migration of Windows to Linux platform. Migration from Access to MySQL and ASP to PHP.

1994-2006: FREE-TIME FREELANCE PROGRAMMER

Free-time freelance programmer for various clients. Several customers

- Freelance web development and management.
- Custom software development in various languages (PHP, JavaScript, Visual C++, Visual Basic...)

Technical Skills

Programming Languages & Frameworks

- **Expert:** C, C++, Java, C#, Python, Bash/Shell, PHP, JavaScript, TypeScript, Visual Basic, Perl, Awk, Assembler (x86, PIC)
- **Distributed & Network Programming:** RMI, SOAP, XMLRPC, CORBA, RPC, sockets, TCP/IP, IPQ, iptables (low-level), OpenSSL (cryptographic functions)
- **Web:** HTML, CSS, XML, XSLT, DTD, XHTML, SOAP, REST, GraphQL
- **Frameworks/Libraries:** Spring, SpringBoot, Node.js, Angular, Vue, GWT, SMARTGWT, Hibernate, LangChain
- **Scripting & Automation:** Bash, Python, PowerShell, GNU tools, autotools
- **Specialized:** Microcontrollers (PIC in C/Assembler), SAP environments

Cloud & DevOps

- **Cloud Platforms:** AWS (EC2, Lambda, S3, RDS, DynamoDB, Kinesis, VPC, Organizations, Control Tower, IoT, SNS, SQS, API Gateway, WAF), Azure (Functions, Storage, SQL Database, Time Series Insights, Virtual Machines, Event Grid)
- **DevOps & IaC:** Docker, Kubernetes, Jenkins, GitHub Actions, Azure DevOps, CI/CD, SonarQube, Terraform, Ansible, LocalStack
- **Serverless:** AWS Lambda, Azure Functions
- **Monitoring & Automation:** Nagios, Prometheus, Heartbeat (High Availability), custom orchestration frameworks and task automation scripts

Databases

- **Relational:** MySQL, PostgreSQL, SQL Server, Oracle, SQLite

- **NoSQL:** DynamoDB, CouchDB
- **Data Processing:** Hadoop, Hive, Pig, HortonWorks, Pentaho ETL
- **Database Design & Modeling:** ADO, ODBC, JDBC, database modeling, design, and optimization

Systems & Networking

- **Operating Systems:** Linux (Debian, RedHat, Ubuntu, SUSE), Windows (9x, NT, 2000, XP), Unix, Solaris, FreeBSD, OpenBSD, NetBSD, AIX
- **Server Management:** Mail (Postfix), DNS (Bind), Samba, NFS, Jabber, Hylafax, Apache, Tomcat, OC4J, IAS, MicroStrategy, Liferay, GoogleSearch/GSA
- **Virtualization:** Xen, QEMU, Proxmox, Linux Virtual Server, chroots
- **Security:** Firewalls (iptables), Snort, Tripwire, scanners, sniffers, VPNs (OpenVPN, PPTP), security audits, incident response, hacking/compromise analysis
- **Network Protocols:** TCP/IP, SNMP, SMTP, sockets, RMI, CORBA, XMLRPC, RPC
- **Network Management:** CA Unicenter, Nagios, LDAP, system-imager, snoopy
- **Storage & Disaster Recovery:** Backup (fabackup, Legato), universal boot CD, system migration, fiber optic cabinets (Hitachi, EMC)

Electronics & Hardware

- **Simulation & Design:** Orcad, PSpice, Workbench, VHDL, MaxPlusII
- **Architectures:** x86 (i386), x86_64 (AMD64), IA64, SPARC
- **Hardware:** IBM, Intel, Blade, Bull, Novascale, Raritan, Hitachi, EMC, QLogic, SunBlade
- **Communications:** RS-232, Ethernet, modem, Siemens Step 7.0 (PLC controllers)
- **PC/Server:** Installation, repair, troubleshooting

Applications & Tools

- **Mathematical/Statistical:** MATLAB, Simulink, Mathematica, SPSS, Octave
- **Design:** 3D Studio, Microstation
- **Office:** Microsoft Office (VBA), Gnome Office, KDE Office, OpenOffice
- **Controllers:** Siemens Step 7.0 (PLC controllers)

Other Skills

- **Teaching & Training:** Advanced programming (C++, Java), Mathematics, Physics, IT for managers
- **Web development and management:** W3C standards, SEO, web development, accessibility
- **Software Packaging:** SUSE, Red Hat, Debian, rpm, deb
- **Optimization:** OProfile, gprof, vmstat
- **Teamwork and coordination:** FOSS model, CVS, Subversion, Trac, team leadership.

Observations

- Highly creative, with the ability to solve complex problems and find optimal solutions by building architectures, designing and implementing them, leading and coordinating teams.
- Keen on open software, programming and IT. My interest in software, communications, networks, computing, security, and related areas allows me to learn new systems and programming languages quickly.
- Enjoy teamwork and team coordination.

References available upon request.

