

SERGIO VALENTÍN FAÚNDEZ VELASCO

Software Architect | Founder, Fëanor's Code | Enterprise AI, Robotics & .NET Platforms

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EXECUTIVE PROFILE

Software architect and hands-on technical leader with 18+ years of experience building mission-critical enterprise software: native desktop applications, robotics control systems, AI/ML platforms, private RAG systems, cloud services, and containerized web applications. Strongest depth in C#/.NET, WPF/MVVM, distributed systems, AI-assisted document intelligence, computer vision, and production engineering. Founder of Fëanor's Code, focused on private enterprise AI, on-prem LLM deployment, autonomous agents, custom platforms, and industrial-grade software delivery.

18+ years

enterprise engineering and architecture

AI + robotics

private RAG, computer vision, ROS2, inspection systems

.NET depth

C#, WPF/MVVM, Blazor, REST APIs, microservices

CORE TECHNICAL STRENGTHS

Architecture	Enterprise architecture, SOLID design, distributed systems, microservices, APIs, event-driven systems, observability, delivery governance
AI / ML / RAG	Private RAG, on-prem LLM deployment, autonomous agents, TensorFlow, OpenCV, FAISS, Qdrant, semantic search, reranking, OCR, model quantization, Agent Framework
.NET / Desktop	C#, .NET Core 10, WPF, MVVM, Prism, Telerik, Blazor, MudBlazor, REST APIs
Robotics / Systems	ROS2, C++, Linux/Yocto, FastDDS, robot control, telemetry, 3D simulation, hardware integration, industrial inspection
Cloud / Platform	Docker, Kubernetes, RabbitMQ, PostgreSQL, AWS, Azure, GitHub, Jenkins, Argo, Airflow, Metaflow

PROFESSIONAL EXPERIENCE

Founder & Software Architect | Fëanor's Code S.L.

Alicante, Spain | Current venture

Founded an enterprise AI and software engineering studio focused on robust software for companies that require data sovereignty, senior-level execution, and production systems rather than demos.

- Defined the company's technical positioning around private RAG systems, on-prem LLM deployment, autonomous agents, custom web and desktop platforms, enterprise architecture, industrial robotics, computer vision, and secure deployment.
- Shipped TENGWAR, a private on-premises enterprise AI/RAG platform for SMBs that ingests internal documents and provides cited answers without sending company data to external cloud AI services.
- Designed product capabilities for smart document ingestion, hybrid semantic search, cross-language retrieval, real-time streamed answers, document generation, connector-based integrations, department isolation, clearance levels, audit logging, and per-document ACL enforcement.
- Maintained public company artifacts across Hugging Face and GitHub, including model releases and tooling/release repositories supporting the TENGWAR ecosystem and DGX Spark model quantization workflows.

Technology: .NET 10 Blazor, MudBlazor, .NET 10 REST API, Agent Framework, Qwen/GLM/M2M models, PostgreSQL, MinIO, Qdrant, RabbitMQ, SearXNG, Docling, Docker, NVIDIA DGX Spark, Python, model quantization, model fine tuning

Links: [Fëanor's Code](#) | [TENGWAR](#) | [Hugging Face](#) | [GitHub](#)

Lead Application Software Developer (Remote) |

Houston, US | Feb 2021 - Present

ARIX Technologies

Member of a team building inspection robots and the software platform used to control them, process inspection data, and generate professional reports.

- Mission Control: WPF desktop application used to drive, program, and retrieve data from custom pipe inspection robots; supports autonomous sequences and direct robot control.
- Integrated robot telemetry and inspection data from IMUs, gyroscopes, cameras, RTR, PEC, and RVI probes, then processed and uploaded results into backend systems for client-facing analysis.
- Reporting Generator Backend: built backend services that generate comprehensive PDF inspection reports from operational data published through the Inspection Portal.
- Robot Upgrade: contributed to migration from custom C hardware/firmware to Variscite SOM hardware with Debian/Yocto and ROS2 implementation in C++ using nodes, packages, and eProxima FastDDS.

Technology: .NET 9, C#, WPF MVVM, Telerik, VisioForge, RabbitMQ, AWS, OpenXML, C++, ROS2, Linux/Yocto, Jira, Confluence, GitLab, Teams

Links: [ARIX analytics software](#)

Senior Software Developer (Remote) | UNOPS

Valencia & Brussels | Sep 2025 – May 2026

Member of a team tasked with modernizing an internal tool.

- Update the project management system from ASP.Net to React & .Net Core

Technology: .Net Core 10, C#, React, DevExtreme Components

Technical Lead (.NET) / Data Science Dev Support Team

Alicante, Spain | Dec 2019 - Jun 2021

Lead | EUIPO via Intrasoft

Technical lead for contractor .NET projects and development support lead for the EUIPO Data Science team.

- Image Search Engine: supported and delivered an AI-powered tool that returns potentially conflicting registered trademarks for a submitted figurative trademark image.
- Image Similarity ML Pipeline: automated retrieval of new trademark designs, model training / transfer learning, and build/deploy flow for updated Kubernetes-hosted TensorFlow models.
- Vienna Codes Suggester: implemented image-classifier-backed suggestions for Vienna Classification codes on user-submitted figurative marks.
- P3 SpeechToText: delivered gateway and .NET Core transcription services integrating Azure ML Speech output into standard .srt files with asynchronous Azure Event Grid communication.
- P1 CVR: built Angular and .NET Core Web API modules for the eCdT after-sales service redesign, covering client portal and internal-office workflows.

Technology: React Hooks, TypeScript, Python, FastAPI, Flask, TensorFlow, OpenCV, FAISS, MongoDB, .NET Core 3.1, EF Core, Azure Event Grid, Azure Logic Apps, Cosmos DB, Azure Storage, Docker, Kubernetes, Jenkins, Argo, Jira, Confluence, Bitbucket

Links: [EUIPO Image Search](#) | [Searching for images in eSearch plus](#)

Senior Software Developer / UI Team Lead (Remote) |

Switzerland & Spain | Aug 2018 - Nov 2019

Hexagon Metrology

Member of an R&D team building BlueFire, a desktop platform for modelling, simulating, validating, and executing robotic inspection cells with 3D visualization and multi-vendor robot program generation.

- Led UI implementation for a WPF client backed by simulation, data, and control microservices.
- Implemented robot-cell modelling and visual robot programming workflows; generated, validated, compiled, and executed vendor-specific robot binaries over direct network connections or stored robot programs.
- Integrated HOOPS 3D representation, real-time execution concerns, and containerized backend services for simulation/control workflows.

Technology: .NET 4.7, .NET Core 3.1, C#, WPF MVVM, Prism, Unity Container, LINQ, EF Core, HOOPS, RabbitMQ, ZeroMQ, Docker, Kubernetes, CUDA, Telerik, SOLID, Jira, TFS, Teams

Links: [HxGN Inspire](#)

Senior Software Developer (Remote) | CareWorks Ltd.

Dublin, Ireland | Nov 2017 - Jul 2018

Remote full-stack developer on CareDirector, a health and social-care management system connecting patients, doctors, mobile applications, and web access to private medical information.

- Worked on common gateway and containerized microservices used by both mobile and web clients.
- Delivered healthcare workflow features using ASP.NET, Web API 2, frontend web technologies, Docker, Kubernetes, and TFS.

Technology: .NET 4.7, C#, ASP.NET, jQuery, Web API 2, Docker, Kubernetes, Bootstrap 4, TFS

Links: [CareWorks solutions](#)

Senior Software Developer | EUIPO via Altia

Alicante, Spain | Aug 2012 - Oct 2017

Member of the Back Office team responsible for maintaining legacy applications and building new versions with current technologies.

- Document Access System (DAS): maintained and evolved the proprietary examiner-facing document management system providing access to more than 80 million documents.
- Built and maintained a .NET/WPF desktop client integrated with a JEE/Spring backend vault through REST APIs.
- Applied SOLID design, automated UI testing, service integration, and continuous quality workflows across a long-lived enterprise platform.

Technology: .NET 4.5, C#, WPF MVVM, Spring .NET, Entity Framework, REST services, NUnit, TestStack White, Sonar, Jira, Confluence, Bamboo, Git

Software Developer | Cesser S.L. (Microsoft Gold Partner)

Alicante, Spain | Oct 2010 - Aug 2012

Developed business software in a Microsoft-focused consultancy environment, strengthening .NET delivery discipline and client-facing implementation experience.

Junior Software Developer | Grupo Ibergest S.L.

Alicante, Spain | Jun 2008 - Oct 2010

Started professional software development career, building and maintaining applications while consolidating core programming, database, and enterprise-support skills.

SELECTED EDUCATION & CERTIFICATIONS

Deep Learning Foundation Nanodegree - Udacity | Dec 2016 - May 2017 | CNNs, RNNs, LSTMs, GRUs, GANs; approximately 200 hours

Expert in Design and Creation of Video Games with Unity 3D - University of Alicante | 2015 | Unity 3D, 3D Studio Max, game design, art direction, content creation, final project

Microsoft Professional Certifications - MCPD and MCTS certifications in Web Developer 4, Windows Developer 4, Silverlight Developer 4, .NET Framework 4 web/data/windows applications, WCF, and Silverlight 4 development | 2012 - 2014

Network and Communications Training - SERVEF | 2007 | Local Area Network Administration Unix/Windows 2000; Satellite Communication Systems Installation and Maintenance

LANGUAGES

Spanish Native	English C2	Catalan C2/C1	French B1/A2/A1
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