

RAFAEL SAN VIDAL

Senior Software Developer | AI-Assisted Development Expert | Healthcare Domain Specialist

25+ YEARS PROFESSIONAL EXPERIENCE | 19+ YEARS HEALTHCARE EXPERTISE

sanvidal1@gmail.com

+34 650953905

Madrid, Spain (EU)

[LinkedIn](#)

[GitHub](#)

[Web](#)

PROFESSIONAL PROFILE

Senior Software Developer with 25+ years of professional experience in enterprise solutions development. My journey started at age 13 with first 8-bit personal computers, writing my first BASIC programs. Specialized in healthcare sector for 19+ years at Becton Dickinson. Full-stack developer expert in .NET, Java, Spring Boot, Angular, React. Pioneer in AI-assisted development workflows.

Current Focus (2025): Building enterprise applications with .NET 9 and Java 21. Embracing AI-assisted development with Cursor, Claude Code and Gemini CLI. Creating cross-platform solutions implementing Clean Architecture and DDD patterns. **Vibe Coding Philosophy:** Leveraging AI to focus on problem-solving and architecture while accelerating implementation without sacrificing code quality.

AI-ASSISTED DEVELOPMENT TOOLS (2024-2025)



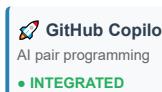
Cursor Pro
AI-powered code editor
• INTEGRATED



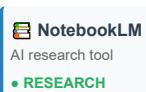
Claude Code
CLI-based AI assistant
• INTEGRATED



Gemini CLI
Google's AI assistant
• INTEGRATED



GitHub Copilot
AI pair programming
• INTEGRATED



NotebookLM
AI research tool
• RESEARCH

PROFESSIONAL EXPERIENCE

Becton Dickinson and Company

Senior Software Developer | Healthcare Solutions

2005 - Present (19+ years)

Key Responsibilities

- Full-stack development (EMEA region)
- Architecture design, UI/UX, security
- CI/CD, DevOps, database management
- Team mentoring and code review

Healthcare Domain (19+ years)

- HL7/HL7-FHIR protocol implementation
- ASTM standards, RFID integration
- Real-time data processing
- Mirth Connect integration platform

Quality & Security

- Fortify OnDemand (SAST), SonarQube
- OWASP Top 10, vulnerability assessment
- HIPAA, GDPR compliance
- Penetration testing, code coverage

Multi-Database Expertise

- MySQL, MariaDB, SQL Server, Oracle, DB2
- Flyway, Entity Framework migrations
- Cross-database compatibility

Omnibona S.L

Software Developer (Part-time) | Multi-platform Health Application

2014 - 2015

Design and development of multi-platform application about healthy habits. Nutrition and exercises in game mode for startup company.

.NET MVC, Razor, Entity Framework, LINQ, HTML5, CSS3, Bootstrap, JavaScript, jQuery, Microsoft Azure

Desia

Software Developer

2003 - 2005

Easynet España S.A.

Support Technical

2003

Healthcare, Telecom, Public Services. Clients: Telefónica, HP, Siemens

Technical support and customer service

.NET, C#, SQL Server, Oracle

L'Oréal Spain

SAP Key Business | Business Analyst

1998 - 2003 (5 years)

SAP R/3 Project Leadership

- Business Key for SAP R/3 (FI, CO, MM)
- Project planning, design, implementation
- ABAP IV programming, reports development
- Business requirements, stakeholder mgmt

Historical Projects

- Y2K and Euro currency conversion
- Accounts and Purchasing systems
- AS/400 and IBM AIX integrations

SAP R/3, ABAP IV, C++, RPG, 4GL, AS/400, IBM AIX, Oracle, CA Ingres

Ministerio de Asuntos Exteriores

Software Developer | Diplomatic Passports Management

1998

Design and development of application to manage diplomatic passports

4GL, CA Ingres

COMPLETE TECHNOLOGY STACK

Backend/Languages	Frontend	Databases	Cloud & DevOps	Testing
.NET 9 / C# 13 Java 21 Spring Boot 3.x ASP.NET Core 9 Node.js / Express Python / Django PHP / Laravel	React Angular TypeScript Blazor WebAssembly WPF / WinForms Uno Platform HTML5 / CSS3 Vue.js	SQL Server MySQL / MariaDB PostgreSQL Oracle IBM DB2 MongoDB Redis Cassandra	Azure / AWS Azure DevOps Docker Kubernetes Terraform Git / GitHub Jenkins CI/CD Pipelines	JUnit / Mockito xUnit / Moq Selenium Playwright Jest / Vitest TDD / BDD
Spring Ecosystem	.NET Ecosystem	Architecture	Methodologies	Quality & Security
Spring Data JPA Spring Security Spring MVC Thymeleaf Flyway Spring Cloud	EF Core / Dapper NLog / Serilog AutoMapper Polly.NET SignalR FluentValidation	Clean Architecture DDD CQRS Microservices Event-Driven SOA	Scrum / Kanban XP TDD / BDD SOLID Principles Clean Code Design Patterns	Fortify (SAST) SonarQube OWASP Top 10 HIPAA / GDPR Penetration Testing
Mobile Development	Historical Languages	Enterprise Systems	Big Data & Analytics	Microservices & Messaging
Kotlin Android Studio	ABAP IV (SAP) RPG (AS/400) 4GL (Ingres) COBOL Pascal C++	SAP R/3 (FI, CO, MM) ABAP IV Programming Business Analysis AS/400 Systems IBM AIX	IBM Cognos Talend ETL Elasticsearch Prometheus Grafana	Apache Kafka RabbitMQ Spring Cloud (Eureka, Hystrix) Event-Driven Architecture
Specialized Technologies	Application Servers	Project Management	AI Tools	Development Tools
Blockchain & Web3 (Solidity, Ethereum) Game Development (Unity 3D, C#) IoT (Arduino, Raspberry Pi) Computer Vision (Abbyy Technologies) Web Frameworks (WordPress, Joomla)	Apache Tomcat Microsoft IIS Oracle WebLogic WildFly IBM WebSphere	Jira Confluence	Cursor Claude Code Gemini CLI GitHub Copilot Azure OpenAI Services Semantic Kernel NotebookLM	Visual Studio Professional Visual Studio Code Cursor Eclipse IBM Rational Suite Postman Insomnia

METHODOLOGIES & SOFTWARE ENGINEERING PRINCIPLES

Agile Methodologies	Architecture Patterns	SOLID Principles
<ul style="list-style-type: none"> Scrum (Sprint Planning, Daily Standups, Retrospectives) Kanban (Continuous Flow, WIP limits) XP (Extreme Programming) Lean Software Development 	<ul style="list-style-type: none"> Clean Architecture Domain-Driven Design (DDD) CQRS (Command Query Responsibility Segregation) Repository Pattern Microservices Architecture Event-Driven Architecture SOA (Service Oriented Architecture) 	<ul style="list-style-type: none"> Single Responsibility Principle Open/Closed Principle Liskov Substitution Principle Interface Segregation Principle Dependency Inversion Principle
Testing Methodologies	Design Patterns (GoF)	Code Quality
<ul style="list-style-type: none"> TDD (Test-Driven Development) BDD (Behavior-Driven Development) ATDD (Acceptance Test-Driven Development) Unit Testing / Integration Testing 	<ul style="list-style-type: none"> Creational: Factory, Builder, Singleton Structural: Adapter, Decorator, Facade Behavioral: Observer, Strategy, Command 	<ul style="list-style-type: none"> Clean Code Principles Code Review Practices Refactoring Techniques Technical Debt Management Documentation Standards

FEATURED PROFESSIONAL PROJECTS (HEALTHCARE)

BD Support System - Hospital Inventory Management

Clean Architecture + DDD enterprise platform

- Hospital equipment tracking and location management system
- Clean Architecture with Domain-Driven Design (4 layers)
- 29 architectural patterns implemented (Repository, Specification, Unit of Work, etc.)
- Multi-database support (SQLite, MySQL/MariaDB, SQL Server, Oracle, DB2)
- JWT authentication with refresh tokens + Role-Based Access Control
- Cross-platform UI: React (Web) + Uno Platform (6 platforms)
- 115+ comprehensive tests (Unit + Integration + E2E with Playwright)
- Complete technical documentation (30+ detailed docs)
- Background jobs with Hangfire + Real-time notifications with SignalR

.NET 9, C# 13, Clean Architecture, DDD, CQRS, MediatR, Multi-DB, JWT, RBAC, Entity Framework Core 9, Minimal APIs, Swagger, AutoMapper, FluentValidation, Hangfire, SignalR, Uno Platform, React, TypeScript, XAML, Android, iOS, WebAssembly, Windows, macOS, Linux, Vitest, Playwright, xUnit, Moq

ScanBatch OCR - Document Processing System

Batch scanning with OCR and barcode recognition

- Abbyy SDK integration for high-quality OCR
- Barcode recognition library for automated processing
- TWAIN scanner driver support for hardware integration
- Windows Service daemon for background processing
- In production across 40+ hospitals

WPF, C#, Abbyy OCR, TWAIN, WIA, Windows Services

DB Transfer Client - Database Migration Tool

Cross-database data transfer utility

- Transfer data between different database engines
- Support for SQL Server, Oracle, MySQL, DB2
- ETL processes and data transformation

.NET, C#, Multi-DB, ETL

BD RFID System - Healthcare RFID Management

Full-stack enterprise platform for hospital sample tracking

- Tag Manage: RFID tag management interface
- Tag Backend: REST API with multi-database support
- SSTSDaemon: Background service for sample tracking
- Tag Shipping: PHP/Laravel shipping module
- Clean Architecture with Domain-Driven Design
- Real-time dashboard with WebSockets (Stomp.js)
- JWT authentication & session management
- WinUI 3 desktop application
- RFID reader integration (CAEN, Impinj)
- Distributed caching & high availability
- In production across 40+ hospitals

Spring Boot, Thymeleaf, Angular, TypeScript, .NET, C#, PHP, Laravel, Node.js, Express, Oracle, SQL Server, IBM DB2, MySQL, WebSockets, RFID, DDD, REST API, JWT, Swagger

BD Components - Cross-Platform Component Library

Reusable UI components with Uno Platform

- Single codebase: Android, iOS, Web, Windows, macOS, Linux
- XAML-based declarative UI
- Custom controls library for consistent design

Uno Platform, .NET, XAML, Android, iOS, WebAssembly, Windows, macOS, Linux

BD WiderLab System - Phlebotomy Room Management

Integral management of extraction rooms with HL7 messaging broker

- End-to-end workflow for phlebotomy room operations
- HL7 messaging broker for interoperability with hospital systems
- Integration with diagnostic devices
- In production across 40+ hospitals

Java, Eclipse, HL7

LEARNING & EXPERIMENTAL PROJECTS

Azure AI Samples & Training

Microsoft official AI samples and courses

- Microsoft official ai-samples repository (40+ examples)
- Semantic Kernel tutorials: Hello SK, Chat History, Plugins, Logging
- Quickstarts: Text Summary, Chat App, Function Calling
- Local models: Phi, LLaMA examples
- AI courses 2024: Prompt Engineering, AI Development

C#, Azure OpenAI, Semantic Kernel, Microsoft.Extensions.AI, LLM Evaluation, OpenAI API

Cloud Functions

Serverless Computing

- Azure Functions development
- AWS Lambda implementation
- Serverless architecture patterns

.NET 9, Azure Functions, AWS Lambda, Serverless

Cloud Architecture

Azure + AWS deployment, DDD, TDD, IA integration

- Azure deployment with .NET 8
- Azure Functions serverless
- AWS deployment with Spring Boot
- Cloud architecture patterns and best practices

Azure, AWS, .NET 8, Spring Boot, DDD, TDD, Azure Functions, AWS Elastic Beanstalk

React Full Stack

Complete React + Node.js + MongoDB

- Full-stack web application development
- State management with Redux
- TypeScript integration

React, TypeScript, Node.js, Express, MongoDB, Redux

Microservices with Kubernetes & Azure

Real deployed microservices architecture

- 3 microservices deployed to Azure Kubernetes Service
- Services: Gateway, Libreria (MongoDB), Seguridad (SQL Server)
- Docker images published to Docker Hub
- Kubernetes manifests (deploy.yml, service.yml)
- JWT authentication and load balancing
- GitHub: github.com/rsvidal/microservices-example1

Kubernetes, Azure AKS, Docker, .NET Core, MongoDB, SQL Server, JWT

Android Development with Kotlin

Native Android app development course

- Complete Kotlin course with Android app structure
- Firebase authentication with Google OAuth
- Android UI/UX with ConstraintLayout
- Testing with JUnit and Espresso

Kotlin, Android Studio, Gradle, Firebase Auth, JUnit, Espresso

Microservices Netflix

Spring Cloud Microservices implementation

- Netflix stack implementation
- Service discovery with Eureka
- Circuit breaker pattern with Hystrix

Spring Boot, Eureka, Hystrix, Docker, Kubernetes

Blockchain/Web3 Development Suite

Solidity, Web3.js, Truffle, Ethereum, Smart Contracts

- Token ICO (Deka Token) with complete functionality
- Smart contracts for token management
- Ethereum testnet integration
- Web3 frontend for contract interaction
- Wallet integration system

Solidity, Web3.js, Truffle, Ethereum, Smart Contracts, JavaScript

IoT & Embedded Systems Suite

Arduino, Ethernet Shield, Bluetooth, Web Services, Mobile Integration

- IoT system with Arduino and Ethernet Shield
- Web Services for remote communication
- CoAP and REST protocols for IoT
- Bluetooth integration for mobile devices
- Xamarin mobile app for remote control

Arduino, Netduino, C++, Ethernet Shield, Bluetooth HC-05, CoAP Protocol, aREST API, Xamarin, Android, Web Services

Unity Game Development

2D game development with Unity 2020.3

- Complete 2D game with Unity
- Interactive text adventure game
- Dialogue and narrative system
- Game mechanics implementation
- Custom assets and sprites

Unity 2020.3, C#, Game Development, 2D Graphics

SOFT SKILLS

- Team Leadership & Mentoring Junior Developers
- Code Review & Quality Assurance
- Technical Documentation
- Stakeholder Communication
- Problem Solving & Analytical Thinking
- Agile/Scrum Ceremonies
- Project Management
- Business Requirements Analysis
- Continuous Learning & Adaptability

TRAINING & CONTINUOUS EDUCATION (80+ COURSES SINCE 1998)

2024-2025 (AI-Assisted Development Era)

Formación Integral en Arquitectura Cloud, DDD, TDD e IA • Desarrollo con IA • Introducción a la IA y Prompt Engineering • Claude Code CLI • Gemini CLI • NotebookLM • .NET 9 & C# 13 • Blazor Development • Dapper ORM • DDD Microsoft Microservices • Sistema de ventas real (C# + Angular + Xamarin) • React & TypeScript • Uno Platform • Azure DevOps Complete • Jira Advanced

2023

Ionic (app) y Net Core (backend) (Udemy) • Go / Golang desde las bases (Udemy) • Big Data Fundamentals (Udemy) • Dart & Flutter (Udemy) • Vue.js avanzado (Udemy)

2022

React + Redux (Udemy, Jul 2022) • .NET MAUI con Visual Studio 2022 (Udemy, Jul 2022) • DevOps, Docker, Kubernetes, microservices y Azure .NET 6 (Udemy, Jul 2022) • Azure Devops (Udemy, Jun 2022) • AWS (Udemy, Jun 2022)

2021

Go / Golang (Udemy, Ago 2021) • TDD - Test driven development con Java y JUnit (Udemy, Dic 2021) • Patrones de Diseño y principios SOLID (Udemy, May 2021) • Refactorizar código Java (Udemy, Mar 2021)

2020

DevOps. Las artes marciales del software (Udemy, Jun 2020)

2019

Java8. (Funcional y lambda) (Udemy, Sep 2019) • Microservicios con Spring Boot / Netflix Eureka (Udemy, Sep 2019) • Programación Python para Machine Learning (Udemy, Sep 2019) • Curso de Python 3 (Udemy, Ago 2019) • Desarrollo de videojuegos con Unity (Udemy, Jun 2019) • Mi primer videojuego con Unity (Udemy, Jun 2019) • API RestFul con Laravel (Udemy, May 2019) • Dominando Laravel. De principiante a expert (Udemy, May 2019) • Android con Kotlin + Firebase + Google (Udemy, Abr 2019) • Machine Learning (Udemy, Mar 2019) • Curso de Django (Udemy, Ene 2019)

2018

Implementación de soluciones en Microsoft Azure (Udemy, Nov 2018) • Python + Django (Udemy, Jul 2018) • Desarrollo de dApps en la blockchain de Ethereum (Udemy, Jun 2018) • Introducción a blockchain, criptomonedas y Ethereum (Udemy, Jun 2018) • Xamarin Forms y Azure (Udemy, Mar 2018) • Angular 6 avanzado (Udemy, Ene 2018) • Curso avanzado de Docker (Udemy, Ene 2018) • Spring Framework 5 (Udemy, Ene 2018) • Persistencia de datos con Java. Hibernate + Spring JPA (Udemy, Ene 2018)

2017

ASP.NET Core MVC (Udemy, Nov 2017) • Curso de iniciación a Haskell (Udemy, Sep 2017) • Xamarin. Build Android and IOS Apps (Udemy, May 2017) • Servicios con WCF (Udemy, Apr 2017)

2016

Git + GitHub (Udemy, Mar 2016) • Desarrollo web Javascript, Angular, Node y MongoDB (Udemy, Apr 2016)

2015

SEO para WordPress (Udemy, Feb 2015) • Aprende a triunfar con SEO (Udemy, Feb 2015)

2014

Community Manager, Redes sociales (HP Formación, May 2014)

2013

Marketing 2.0 (Grupo Fides21, Mar 2013) • Team Building. Gestión de Liderazgo (Fides21, Dec 2013)

2006

IBM Rational V7. Clearcase, SOA, Business Modeler (Sep 2006) • IBM DB2 (Sep 2006) • Infaimon Sherlock. Vision Artificial (May 2006) • Infaimon CVB. Vision Artificial (May 2006)

2005

Gestión De Proyectos (Oesia, 160h, Jan 2005)

2004

Programación Visual C++ (Oesia, 40h, May 2004)

2003

Administración SQL Server (Sunion Gesfor, 40h, Nov 2003) • Programación Java (Oesia, 40h, Oct 2003) • Optimización Oracle 8i (MR Informática, 80h, Jun 2003) • PL/SQL (Dayfisa, 40h, Apr 2003) • Xml (IBM Learning, 30h, May 2003) • Administración Oracle (Dayfisa, 40h, May 2003) • Macromedia Flash (IBM Learning, 30h, Mar 2003) • Ingeniería De Software (Sunion Gesfor, Jan-Mar 2003)

2002

SAP MM. Verificación De Facturas (Sap España, 25h, Oct 2002) • Programación Avanzada Java (IBM Learning, 25h, Apr 2002) • Administración AIX (IBM Learning, 30h, Apr 2002) • Programación Avanzada RPG IV (AS/400) (IBM Learning, 50h, Feb 2002)

2001

Programación Java (Gesein, 100h, Feb-Abr 2001)

1999

Cobol – CICS – DB2 (Cap Gemini, 160h, 1999)

1998

Técnico En Sistemas Unix / Oracle (Sunion Gesfor, 350h, 1998) • Microinformática (Academia Teide, 300h, 1998)

Total courses completed: 80+ | Platforms: Udemy, IBM Learning, Oesia, Cap Gemini, Academia Teide, HP Formación, Fides21

Active learner since 1998 (25+ years of continuous training)

ADDITIONAL INFORMATION

- **Portfolio:** <https://rsvidal.github.io> - Terminal-style interactive portfolio
- **Philosophy:** 25+ years applying software engineering best practices. Expert in modern development methodologies and architectural patterns. Strong advocate for clean code and quality engineering. Pioneer in AI-assisted development (Cursor, Claude Code, Gemini CLI, GitHub Copilot)
- **Healthcare Domain:** 19+ years specialized experience including HL7/HL7-FHIR protocols, ASTM standards, RFID integration, real-time data processing for critical systems
- **Work Arrangements:** Available for new opportunities and collaborations. Open to remote/hybrid work arrangements in EU