

Emiliano Schmid

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Professional Summary

Innovative and results-driven Software Engineer with 20 years of advanced C++ development experience. I thrive on overcoming complex challenges and delivering high-impact solutions in digital security and public safety. My passion lies in architecting scalable systems—such as video management, real-time analytics, and AI-driven recognition—that push the boundaries of technology. I am especially interested in projects that demand creativity and technical excellence.

Professional Experience

Danaide (2009 – Present)

Technical Head of Software Development

Award-winning Argentine digital security company recognized for pioneering public safety solutions in Latin America.

- **Department Leadership:**
 - Founded and built the software development department from scratch—including infrastructure setup, HR processes, and team culture—fostering an environment of innovation and technical excellence.
 - Recruited and led a high-performing team, encouraging open technical debate and participative design.
- **Key Projects:**
 - **UltraIP VMS (Video Management System):**
 - *Role:* Software Architect & Lead Developer
 - Architected and implemented a scalable, city-wide video streaming and analytics platform.
 - **UltraIP Central ANPR (Automatic Numeric Plate Recognition):**
 - *Role:* Software Architect & Team Leader
 - Led the design and deployment of a high-volume plate recognition system capable of processing millions of vehicles daily.
 - **UltraIP Face Recognition:**
 - *Role:* Software Architect & Lead Developer

- Delivered the first version in just one month, later contributing to law enforcement efforts by capturing over 2,000 fugitives in subway systems.
- **UltraIP Realtime Analytics:**
 - Designed and implemented real-time video analytics components, overlaying metadata on live feeds to enhance situational awareness.
- **ORM & Serialization Framework for C++:**
 - Developed a robust framework utilizing meta-programming techniques to optimize data handling and application performance.
- **DevOps & Continuous Integration:**
 - Pioneered the implementation of CI/CD pipelines using GitLab CI, Kubernetes, and Docker, streamlining development and deployment.
- **Innovative Integrations:**
 - Contributed to projects involving augmented reality, IoT device programming, and the development of cloud-ready surveillance systems.

ID Gaming (2005 – 2009)

Game Developer & Platform Maintainer

American company specializing in slot machine development for casinos.

- Led the full-cycle development of multiple casino games, from feasibility analysis to deployment.
- Enhanced the LASH programming environment by introducing a type inference system and higher-order functions.
- Managed the game development platform to ensure stability and continuous improvement.

Project for Buenos Aires City Government (2004 – 2005)

Full Stack Developer

(Financed by the Inter-American Development Bank)

- Replaced the outdated salary budgeting system with a modern, web-accessible platform built with PHP and HTML.
- Developed an object-oriented framework for dynamic view creation, significantly improving scalability and maintainability.

Ciudad Abierta, Buenos Aires (2004)

Independent Software Developer

Television channel project aimed at automating daily programming.

- Designed and developed a desktop application that automated the creation of a 24-hour programming playlist—including shows, ads, and separators.
- Integrated user-defined criteria and implemented features for automated playlist suggestions.
- Delivered the complete solution as a sole developer within a three-month timeframe.

Personal Projects & Programming Passion

From my early days programming on a Commodore 64 to my current advanced projects, my journey has been driven by curiosity and a relentless desire to innovate:

- **Paint for Commodore 64:**
 - Created graphics software at age 10, marking my first foray into programming.
- **Encryption Algorithm:**
 - Developed a custom encryption algorithm to explore the fundamentals of cryptography.
- **3D Engine:**
 - Built a 3D rendering engine from scratch to deeply understand computer graphics and rendering techniques.
- **Compiler to Assembly:**
 - Designed a compiler that translates a custom language into assembly code, delving into language processing and compiler construction.
- **Compiler from Turing Machine to 3SAT:**
 - Engineered a tool that converts Turing machine descriptions into 3SAT expressions, engaging with core computational theory and algorithmic challenges.
- **Smart Faces:**
 - Developed a puzzle game for early Android devices, exploring mobile gaming dynamics.
- **Ocular:**
 - Created an Android security camera application based on the ONVIF standard, showcasing my interest in networked security solutions.
- **Trade Bot:**
 - Experimented with automating market analysis and trading decisions, blending programming skills with financial technology.
- **Crowdfunding Collaborative System:**

- Developed an innovative platform for collaborative crowdfunding, featuring project creation, account management, financial transactions, and a secondary market for trading project shares.

Technical Skills

- **Programming Languages:**
 - **C++:** Expert (Template Metaprogramming, STL, Boost)
 - **C#:** Advanced
 - Additional exposure: Python, Java, JavaScript, PHP, Go
- **Web Development:**
 - ASP.NET, Entity Framework
- **Database Management:**
 - SQL, PostgreSQL, SQL Server, MySQL, MongoDB, Redis
- **Messaging Systems:**
 - NATS
- **DevOps Tools:**
 - Docker, GitLab CI, Kubernetes