Alexandre Girard Davila

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Professional Summary

Senior Software Engineer with 18+ years of experience in full-stack development, specializing in open-source solutions and AI/ML integration

Technical Leadership: Architected and deployed enterprise-scale platforms for computer vision, edge computing, and real-time data processing serving Fortune 500 clients

Open Source Impact: Maintained 358+ public repositories with 607+ stars, including widely-adopted tools for network visualization, computer vision, and hardware integration

Innovation Driver: Award-winning developer (IK Prize 2016, Tate • Microsoft • Fabrica • Jolibrain) combining artistic vision with technical excellence in AI-powered installations

Core Competencies

Programming & Frameworks: React, TypeScript, JavaScript, Python, Ruby, Java • Node.js, Django, Rails • RESTful APIs, WebSockets

Infrastructure & DevOps: Docker, CI/CD • Edge Computing (Jetson Nano) • MongoDB, PostgreSQL, Redis • System Architecture & Microservices

AI/ML & Specialized Technologies: Computer Vision (DeepDetect, OpenCV) • LLM Integration & RAG Systems • Real-time Data Processing • IoT & Hardware Integration (Raspberry Pi, Arduino)

Languages: English (Professional), Spanish (Professional), French (Native)

Professional Experience

Independent Consultant, Senior Software Engineer — Remote - Thailand · July 2024 – present
Leading development of enterprise-grade open-source AI infrastructure

- Architected and deployed Colette , a production-ready self-hosted RAG and LLM serving platform
- Streamlined deployment through containerization and UI optimization

Jolibrain, Senior Software Engineer — Toulouse, France · May 2018 – June 2024
Led full-stack development for AI-powered computer vision platforms serving enterprise clients

- Architected React-based platform UI for DeepDetect platform framework
- Delivered edge computing solution for Vinci, monitoring 50+ construction sites with 99.9% uptime
- Spearheaded JoliGen AI integration for Cartier luxury retail
- Built video metadata extraction system of railway footage for predictive maintenance

Freelance, Web Developer — Toulouse, France · Jan 2011 – Apr 2018
AI museum installations and hardware integration projects

- Won IK Prize 2016 at Tate Britain for 'Recognition '
  - comparing photojournalism with British art from Tate collection in collaboration with Fabrica and Microsoft
- Engineered Raspberry Pi fleet management system for Europa Group serving international conventions
- Published open-source raspi-kiosk-server adopted by developers for digital signage solutions

Legodata, Senior Ruby Developer

Built scalable event management platform for cultural sector

- Developed platform managing cultural events with Letsmotiv magazine
- Designed scalable architecture for event data management and publication

Toulouse, France
Jan 2009 – Jan 2011

Independent Consultant, Full-Stack Developer

Delivered enterprise social platforms for major financial institutions

- Built feevy.com social aggregation platform processing daily RSS feeds
- Deployed WordPress MU-based blogging platform for BBVA serving 5,000+ employees across 30 countries

Europe (Toulouse, Madrid, Berlin)
Jan 2007 – Jan 2009

Atchik Realtime, Java Developer

Developed real-time mobile applications for pre-smartphone era

- Built WAP-based chat and dating applications for nation

Toulouse, France
Jan 2007 – Jan 2009

CESR - now IRAP, Java Developer

Scientific software development for space research

- Developed Cassis spectral analytics tool ⧉
- Contributed to various tools for Herschel satellite project
- Implemented data analysis solutions for astrophysics research
- Developed Cassis ⧉ spectral analytics tool processing astrophysics research data
- Contributed to mission-critical software for astrophysics research on Herschel Space Observatory ⧉ ESA mission

Toulouse, France
Jan 2005 – Jan 2007

Education

DUT **IUT de Vannes**, Computer Science

- Specialized in Software Engineering

Vannes, France
Sept 2000 – June 2002

Sheffield Hallam University, Computer Engineering

- Erasmus: European exchange program

Sheffield, UK
Sept 2002 – Mar 2003

Extracurricular Activities

- **Photomaton AI**: AI-powered photobooth system in collaboration with Minutepapillons ⧉

- **Tetalab Hackerspace**: Co-founded Tetalab ⧉, NGO focused on hacker culture and technology education

- **Open Source Portfolio**: Maintained 358+ repositories including parasol ⧉ (network visualization), react-bounding-box ⧉ (computer vision), and Muse VR Levitation ⧉ (hardware integration)