Fabián Solano

Senior Software Engineer — AI · Enterprise Search · Intelligent Systems

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EXPERIENCE

Senior Software Engineer I — Pureinsights Technology

Feb 2025 – Present

San José, Costa Rica | Remote

- Guided customers to understand business objectives and design AI-powered search and retrieval solutions using LLMs, RAG, MCP, semantic search, vector databases, agentic AI, and modern search technologies.
- Led technical discovery sessions, solution architecture, and technical proposal development, translating complex business requirements into scalable, production-ready solutions.
- Collaborated with solution architects, project managers, and engineering teams to drive key technical decisions from pre-sales through implementation and customer delivery.
- Designed and developed backend services, APIs, AI agents, and search applications using Python and Java, along with frontend solutions using React, HTML, Chakra UI, and related technologies.
- Own customer-facing technical engagements by presenting architectures, demonstrations, and implementation roadmaps to both technical and executive stakeholders.
- Mentored junior engineers and interns through technical guidance, project onboarding, architecture reviews, and knowledge sharing.
- Represented the company in technical presentations, customer workshops, and industry events, showcasing AI and enterprise search solutions.
- Contributed to technical thought leadership through engineering blogs, internal knowledge sharing, and continuous professional development, including earning the Google Professional Machine Learning Engineer certification.

Vector Search · Large Language Models (LLMs) · Artificial Intelligence (AI) · Model Context Protocol (MCP) · Agent to Agent (A2A) · Python · Java · React · Software Project Management · Software Design

Software Engineer II — Pureinsights Technology

Feb 2022 – Jan 2025

San José, Costa Rica | Remote

- Implemented AI software with LLMs support to create RAG services, code generation, code translation and unit test deployments.
- Designed and developed backend solutions and micro services for a professional search engine tool using Python and Java with technologies such as MongoDB, ElasticSearch and React.
- Implemented cloud infrastructure with REST APIs, Kubernetes, Docker, Terraform, Helm charts and message brokers such as RabbitMQ.

SKILLS

AI
LLMs, RAG, Agents, MCP, Embeddings, Evaluation

Search
Semantic Search, Vector Search, Hybrid Search, Ranking, Retrieval

Engineering
Python, Java, C++, TypeScript, React, APIs, Distributed Systems

Infrastructure
AWS, Kubernetes, Docker, Elastic, MongoDB, PostgreSQL

Databases
MongoDB, PostgreSQL, Elasticsearch

CERTIFICATIONS

Professional Machine Learning Engineer
Sep 2025
Google
Show credential

MongoDB Certified Partner, Developer
Aug 2025
MongoDB
Show credential

MCP: Build Rich-Context AI Apps with Anthropic
Jun 2023
DeepLearning.ai
Show credential

SI Associate
Mar 2023
MongoDB
Show credential

Created custom AWS lambda functions and auto managing scripts to reduce deployment costs.

- Worked internationally on-site for customers to support their team on software projects.
- Worked with escalation and monitoring with tools such as DataDog, Prometheus, Grafana, Dynatrace.
- Implemented unit and integration tests to ensure code quality and conducted performance tests using Gatling.
- Used Agile and SCRUM methodologies in a Jira based environment with best Git practices.

Vector Search · Artificial Intelligence (AI) · Prompt Engineering · Java · Python · React · Large Language Models (LLMs) · Microservices · Docker · Software Development · Helm Charts · JavaScript · Kubernetes · Cloud Computing · Bash · Elasticsearch · Opensearch · Terraform · AWS

Embedded Software Team Lead — RidgeRun

Sep 2021 – Feb 2022

Cartago, Costa Rica

- Managed a group of 6 engineers on cutting edge technology projects based on Embedded Systems for top-market companies in the US, European and Asian markets.
- Led meetings to obtain requirements from customers and created estimates for hours and budgets based on their needs.
- Used SCRUM methodology to keep the teams in several simultaneous projects organized and effectively achieving each sprint tasks.
- Trained and helped other engineers to learn about company technologies.
- Developed schedules, deadlines, budgets, metrics and reports that ensures product quality and business objectives completition.
- Participated in the company hiring process to evaluate candidates in both technical and personal traits areas.

C++ · Linux · Kubernetes · Python · Bash · Signal Processing · Embedded Linux · Device Drivers · JavaScript · C · Embedded Systems · Software Development · Gstreamer · SoC · Code Reviews · Leadership

Intermediate Embedded Software Engineer — RidgeRun

Feb 2021 – Sep 2021

Cartago, Costa Rica

- Main developer for high-end projects that include technologies such as Yocto, Mender, V4L2 Drivers, Jetpack, Kubernetes, Docker using video and audio codecs like AAC, H264, H265, MPEG, MJPEG and other streaming protocols including RTP, RTSP, WebRTC and others.
- Advanced programming in languages and technologies such as C, C++, Python, Java, React, Shell Scripts and software design following best practices and design patterns.
- Used build systems such as Makefile, Autotools, CMake, Meson along with debugging tools like gdb, NVIDIA Nsight, Valgrind.
- Participated in code-review process to ensure company source code standard using version control techniques in platforms like Gitlab and Github.

LANGUAGES

English	C1
Spanish	Native

- Provided hardware integration and support for embedded software projects by being comfortable reading schematiccs, using multimeters, oscilloscope, logic state analyzer, I2C analyzers, JTAG debugger and performing circuit analysis and modifications.
- Provided trainings for the 50+ engineers in the company in topics such as profiling using tools such as Gperftools and platforms performance characterizations using rooftop model.

C++ · Linux · Kubernetes · Python · Bash · Signal Processing · Embedded Linux · Device Drivers · JavaScript · C · Embedded Systems · Software Development · Gstreamer · SoC · Code Reviews

Junior Embedded Software Engineer — RidgeRun **Jun 2019 – Feb 2021**

Cartago, Costa Rica

- Developed solutions using Embedded Systems running Linux and Multimedia frameworks like GStreamer.
- Designed and implemented image processing algorithms for the Research and Development department including solutions in Image Signal Processing such as a Birds-eye-view project.
- Programmed device drivers for NVIDIA (Nano, Xavier AGX, TX2) and NXP (iMX6, iMX8) platforms.
- Delivered evaluation binaries and custom products to clients around the world.

C++ · Linux · Kubernetes · Python · Bash · Signal Processing · Embedded Linux · Device Drivers · JavaScript · C · Embedded Systems · Software Development · Gstreamer · SoC

Undergraduate Researcher — Karlsruher Institut für Technologie (KIT) **Jan 2019 – Jun 2019**

Karlsruhe, Germany

- Research thesis for graduation project as Computer Engineer.
- Worked under the supervision of Dr. Ing. Jorge Castro-Godínez at the CES (Chair for Embedded Systems)
- Researched in Approximate Computing topic, using Bare Metal programming on ARM processor with the development board Cyclone V DE1-SoC.
- Main objective of the project was to design a quality control methodology at run-time when using Approximate Accelerators that allows a dynamic change from continuous check by hardware to periodic check by software.

Linux · Embedded Linux · C · Embedded Systems · SoC · Python

EDUCATION

Master of Science, MSc, Computer Science **Ongoing**

Tecnológico de Costa Rica · Pending

Licentiate Degree, Computer Engineering **Feb 2014 – Jun 2019**

Tecnológico de Costa Rica · 8.1 of of 10