EMERSON HERRERA TOLENTINO

FULL STACK SOFTWARE ENGINEER · JAVA, .NET, NODE.JS & ANGULAR

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PROFESSIONAL SUMMARY

Software Engineer with 8+ years of experience in full stack and backend development and systems integration for banking, telecommunications, healthcare, education and industrial certification. I combine a strong background in scalable software architecture —microservices with Java (Spring Boot), C# (.NET) and Node.js, Angular and React frontends, and relational and NoSQL databases— with AWS and Azure deployment and DevOps practices. In the last two years I have brought Generative AI into enterprise solutions, including a multi-tenant RAG platform serving several banking applications, and I work daily with AI agents, always with testing and review. My goal is to build software that is scalable, secure, measurable and applicable to real business problems.

TECHNICAL SKILLS

Languages & Frameworks: Python (FastAPI), Java (Spring Boot), C# (.NET), Node.js, PHP (Laravel, CodeIgniter), JavaScript/TypeScript

Frontend: Angular, React, Next.js, Vue.js, Tailwind CSS, Filament

Databases: PostgreSQL, Oracle, SQL Server, MySQL, MongoDB, Redis

Cloud & DevOps: AWS (EC2, S3, Lambda, RDS), Azure, Docker, CI/CD (GitHub Actions), Dokploy, Linux (Red Hat, Ubuntu)

Architecture & Integration: Microservices, hexagonal and clean architecture, REST/SOAP APIs, JWT, distributed systems, ETL process automation

Quality: TDD, JUnit, Mockito, PHPUnit, SonarQube/SonarCloud, Postman, Swagger · Scrum (SFPC™), Jira, Git

Languages: Spanish (native) · Portuguese (intermediate; good comprehension) · English (intermediate; advanced technical)

PROFESSIONAL EXPERIENCE

Analyst Programmer II | Full Stack AI Engineer / GenAI & RAG Developer

Canvia · Peru (remote) *Oct 2025 — Present*

- Client: Central Reserve Bank of Peru (BCRP). Designed, built and improved a multi-tenant RAG platform serving 4 of the bank's applications (BCRP Portal, Research Portal, NEXO 360 and Banknotes), including the ingestion and indexing of thousands of documents and hundreds of thousands of chunks; its assistant is live on the Research Portal (investigacion.bcrp.gob.pe).
- Node.js gateway orchestrating client systems and a Python backend exposing shared tools; chat, search and prompt modules configurable per application and per area.
- SQL pipelines exporting the Researchers' Platform datasets to RePEc, with data modeling and Oracle query optimization; backend microservices deployed on AWS.
- Daily use of AI agents with persistent memory and project-specific skills, with human review and testing.
- Stack: Python, FastAPI, LangChain, Node.js, Java, React, Angular, PostgreSQL, Oracle, AWS, Azure, Docker.

Full Stack & AI Developer (Freelance)

Certilab S.A.C. · Remoto *Sep 2024 — Present*

- Certification system in Laravel 11 and Filament with 300+ certificates issued: admin back office, client intranet to look up their own certificates, and a public QR validation portal with encrypted IDs.
- Certificate issuance, signed PDF upload, QR generation, roles and permissions, activity auditing and S3 storage, running on Docker.
- Corporate website with Next.js 15 and React 19 and automated deployment.

Full Stack Developer | Angular, Java, .NET & Process Automation

Way Tech (WIN Empresas / Universidad Continental projects) · Peru (remote) *Nov 2024 — Oct 2025*

- Built academic and institutional platforms for Universidad Continental (24,000+ students across Huancayo, Arequipa, Cusco and Lima) with Angular and microservices in C# (.NET) and Java.
- Consumed and documented RESTful APIs with Swagger and improved performance of high-traffic academic systems.
- Automated financial and business processes with Node.js, ensuring integration across systems.
- Managed and optimized SQL (MySQL, SQL Server, Oracle, PostgreSQL) and NoSQL (MongoDB) databases for high-traffic transactional workloads.
- Diagnosed and resolved incidents in Java, PHP, C# and AWS systems, documenting each solution.

Systems Engineer

Indra · San Isidro, Peru (remote) *Mar 2021 — Aug 2024*

- Client Telefónica del Perú: distributed systems and microservices for telecommunications, with daily customer activation and deactivation processes and financial data on billing, claims and commissions.
- Real-time processing of home modem telemetry across Peru by zone: Python ETL microservice integrating network status from several APIs, raising alerts and feeding customer management and monitoring dashboards.
- Built web applications with Java Spring Boot, PHP (Laravel, CodeIgniter), .NET, Python, PowerBuilder, Angular, React and Vue.js.
- Integrated REST and SOAP services with JWT security and AWS and Azure services.
- Administered MySQL, Oracle, SQL Server and MongoDB databases and Red Hat Linux servers; ETL automation with Shell.
- Unit testing with JUnit, Mockito and Postman and code analysis with Sonar, following agile practices.

IT Systems Analyst

Multilab · Pueblo Libre, Peru *Feb 2020 — Mar 2021*

- Transactional clinical systems with Laravel and CodeIgniter: new features, reporting, and roles and permissions.
- Database modeling and optimization; AWS services (S3, EC2) and version control with GitLab.
- Specialized remote and on-site technical support to keep all sites operating.

Software Development Area Manager

MControl Energy Technology SAC · Lima, Peru *Jul 2019 — Jan 2020*

- Led a team of 2 developers, ensuring timely delivery and optimizing critical systems for service stations of the Gasocentro and Irasa groups (Lima and Ica).
- Planned and executed custom software projects aligned with client objectives.

Software Developer

MControl Energy Technology SAC · Lima, Peru *Nov 2017 — Jul 2019*

- Custom solutions and transactional systems with C#, ASP.NET, PHP (Laravel), JavaScript, TypeScript and Vue.js; SQL Server and MySQL database modeling and optimization.

AI-ASSISTED DEVELOPMENT

- Daily work with coding agents (Claude Code, Codex, Pi) on Gentle Shell and Gentle AI, following ODD (Organic Driven Development): explore before changing, subagents to implement and verify, TDD and risk-based review before every commit.
- Persistent memory with Engram to keep architecture decisions, findings and task state across sessions.
- Environment tailored to real projects: custom skills, MCP servers (read-only Oracle, Laravel Boost, container logs, GitLab, CodeGraph) and model selection per task.
- Agent factory on my own VPS: unattended issue execution triggered from Telegram (n8n) and nightly batches, with PRs and CI as quality gates.

SELECTED PROJECTS

Meeting Assistant with On-Device Transcription

Python, Docker, Dokploy, WhisperKit, PostgreSQL *2026*

- Bot that joins meetings, recording library with on-device transcription (WhisperKit), speaker separation and LLM summaries; deployed on a VPS with Dokploy, CI and SonarCloud, built with AI agents through reviewed PRs.

Microservices E-commerce

TypeScript, Node.js · github.com/emersonheto/ecommerce-microservices *2026*

- API Gateway with authentication, product, order, payment, notification and monitoring services.

EDUCATION

Bachelor's Degree in Software Engineering

UTP — Universidad Tecnológica del Perú *2021 — 2024*

Training Program in Microservices with Java and Spring Boot

Lite Thinking *Jun 2024 — Sep 2025*

AI Engineer Specialization Program — Diploma of Excellence (19/20)

Data Science Research Perú · 92 academic hours *Mar 2026 — Aug 2026*

- RAG, agents, MCP, multimodal applications, LLM evaluation, guardrails and LLMOps; final project: a multi-agent system applied to enterprise processes.

Professional Technician in Software Development — 3-year technical degree

SENATI *Mar 2016 — Jul 2019*

CERTIFICATIONS

- **Tecylab:** DevOps Multicloud Specialist (2025) · Angular Specialist (2025) · Senior in NodeJS Microservices with Cloud (2025) · Senior in Spring Boot Programming on Multicloud (2024).
- **Data Science Research Perú (2026), Diplomas of Excellence:** Evaluation, Observability and LLMOps (19) · Multimodal Agents (19) · AI Agents and MCPs, Agentic RAG (18) · Prompt Engineering and RAG (18) · AI Engineering Fundamentals (18) · Natural Language Processing.
- Google Cloud Platform — DSRP (2024) · Scrum Foundation Professional Certification (SFPC™) — CertiProf (2024)

PUBLICATIONS / RESEARCH

Co-author — "Benchmark of Multimodal Vision-Language Models for Damage Detection"

LatinX in CV (LXCV) Workshop, CVPR 2026 *Jun 2026*

- Benchmark of CLIP, SigLIP, SigLIP2 and FuseLIP for natural-disaster damage detection from images and text. Work led by Mariana Risco Cosavalente, with Prof. Claudio Jung (UFRGS).