BRUNO VILLAS BOAS DA COSTA

Software Engineering | Tech Team Lead
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PROFESSIONAL SUMMARY

Hands-on Technical Lead and Advisory-level Software Engineer with 13+ years of experience architecting enterprise-grade systems, REST API integrations, AI-driven developer platforms, and high-volume telemetry and log processing pipelines. Proven track record in conceiving Internal Developer Platforms (IDP) that boost engineering efficiency by over 70% and reduce issue diagnostic time from hours to minutes. Expert in Python ecosystem (Asyncio, Polars, FastAPI, NiceGUI), Generative AI / LLMOps (Vertex AI, RAG, LangChain, LangGraph, Google ADK, MCP/FastMCP), Machine Learning, and cloud-native architecture. Adept at process optimization, leading cross-functional engineering teams, aligning technical strategy with business ROI, and driving continuous delivery through Agile methodologies.

CORE COMPETENCIES

- **Engineering Leadership:** Technical Leadership, Process Optimization, Software Architecture, Team Mentoring, Agile Methodologies (Scrum/Kanban), Technical Strategy, Stakeholder Management, Product Ownership (IDP).
- **Artificial Intelligence, Generative AI & LLMOps:** LLMs (Gemini, GPT, Claude), Vertex AI, RAG Architectures, LangChain & LangGraph, Google ADK, Model Context Protocol (MCP / FastMCP), AI Agents, Prompt Engineering, NLP, Deep Learning.
- **Systems & Backend Engineering:** Advanced Python (Asyncio, Multiprocessing, Concurrency, Typing, AST), Java, RESTful APIs (FastAPI), C/C++, Distributed Systems, Microservices, System Architecture.
- **Data Engineering & Performance:** Polars, DuckDB, Pandas, NumPy, Data Analysis, Google BigQuery, MongoDB, High-Throughput Log/Telemetry Processing, Memory Optimization.
- **DevOps, Cloud & UI:** Google Cloud Platform (GCP), Docker, GitLab CI/CD, WebSockets, Full-Stack Python (NiceGUI, Vue.js/Quasar, Tailwind CSS), Jira API, Enterprise Systems Integration.

WORK EXPERIENCE

MOTOROLA MOBILITY | Jaguariúna, SP, Brazil
Technical Lead & Advisory Engineer (Internal Developer Platform & AI) | Oct 2022 – Present

- **Internal Developer Platform (SaaS) & Process Optimization:** Architected and scaled an enterprise Internal Developer Platform (IDP) serving hundreds of queries, increasing engineering throughput and workflow efficiency by >70%.
- **High-Throughput Data Infrastructure:** Engineered a distributed multi-node log processing engine capable of streaming and ingesting up to 200 GB daily of raw telemetry data using Polars, DuckDB, and multiprocessing without memory degradation.
- **Applied Generative AI & MCP:** Integrated GenAI diagnostic workflows (Google Vertex AI, LangChain, LangGraph, Google ADK, RAG) and authored custom Model Context Protocol (MCP) servers, enabling automated root-cause analysis (RCA) and reducing issue triage time from hours to minutes.
- **Technical Leadership & Governance:** Led cross-functional engineering initiatives, set code quality bars (Ruff, Pyright, 100% strict typing), established Architecture Decision Records (ADRs), and mentored senior/junior engineers.
- **Enterprise Integrations & Automation:** Built automated end-to-end integration pipelines across Jira REST API, Microsoft SharePoint/Graph API, Google Drive, JFrog Artifactory, and others.
- **Recognition:** Honored with the Smart Tool Award in Develop For Efficiency 2025 & 2024 for creating high-impact automation tools, alongside 2nd Place LATAM & 2nd Place Global "Best of Show" at Motorola Hackathon 2025 and 1st Place "Best Design" at Motorola Hackathon 2019.

DAITAN LABS (An Encora Company) | Campinas, SP, Brazil
Software Development Specialist (Edge Computing & Cloud) | Jan 2022 – Oct 2022

- Directed Edge Computing architectural initiatives leveraging Kubernetes and Docker to optimize cloud-edge resource distribution, significantly improving network latency and processing speed.
- Architected cloud management workflows to streamline edge node deployment, maximizing resource efficiency and system reliability across distributed environments.

INSTITUTO DE PESQUISAS ELDORADO | Campinas, SP, Brazil
Technical Lead & Senior Software Analyst (Telecom Network Team) | Jul 2013 – Jan 2022

- Served as Technical Focal Point and Team Lead for telecom network software projects, managing task delivery, clearing blockers, and driving cross-functional alignment.
- Built Android-native tools (Java, C, C++) for interpreting and converting 5G/LTE modem logs, significantly improving debugging speed and integrating automated issue tracking via Jira.
- Led root-cause analysis for Qualcomm, Samsung, and MediaTek modem chipsets and engineered bug fixes directly within Android devices.
- Automated complex telecommunication test suites (IPv6, Carrier Validation, Protocol Commissioning) utilizing Rohde & Schwarz, Keysight, and NI hardware environments.
- Engineered end-to-end process automation workflows, battery drain test suites, and internal diagnostic tools, significantly accelerating issue triage speed and boosting operational output.
- **Recognition:** Awarded Eldorado Talento Award (Top 5% Engineers, 2015), Eldorado Partner Award (2019), PEEC Awards (2020 & 2018), and Flash Award (2016) for excellence in test automation and client partnership.

ERNST & YOUNG TERCO | São Paulo, SP, Brazil
Performance Improvement Consultant (Level 3) | Mar 2013 – Jul 2013

- Conducted end-to-end process and financial system audits across enterprise partner projects to identify operational bottlenecks and boost workflow throughput.
- Implemented software maintenance fixes and integrated SAP APO demand planning modules to optimize resource allocation and supply chain planning.

UpperTools Tecnologia da Informação | Sorocaba, SP, Brazil
Software Development Intern | Feb 2012 – Jul 2012

Hydro Aluminum | Rockledge, FL, United States
Information Technology Intern | Aug 2011 – Dec 2011

EDUCATION

- **Postgraduate Specialization in Network and Telecommunication Systems**
  Inatel (Instituto Nacional de Telecomunicações) – 2016
- **Bachelor of Science (BSc) in Computer Science**
  UFSCar (Universidade Federal de São Carlos) – 2008 – 2012

CERTIFICATIONS & CONTINUOUS EDUCATION

- **Scrum Alliance:** Certified ScrumMaster® (CSM)
- **MongoDB Certified:** Building AI Agents, RAG Apps, Vector Search, Python CRUD Operations
- **Generative AI & LLM Specializations:** Vertex AI, RAG Systems, LangChain/LangGraph, MCP & FastMCP, Deep Learning (GCP, Skillsoft, Udemy & Industry Platforms)
- **National Instruments Certifications:** LabVIEW Core 1-3, TestStand Development, DIAdem

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AWARDS & HONORS

- **Develop For Efficiency Award (2025 & 2024):** Recognized for an AI-driven Smart Tool & Internal Platform Development.
- **Motorola Hackathon 2025:** 2nd Place LATAM & 2nd Place Global "Best of Show".
- **Motorola Hackathon 2019:** 1st Place "Best Design".
- **Eldorado Excellence Contribution Awards (PEEC 2020 & 2018)**
- **Eldorado Partner Award 2019:** Acknowledged by partners for outstanding performance.
- **Flash 2016:** Recognized for creating battery test automation projects.
- **Eldorado Talento Award (Top 5% Engineers, 2015).**