Thaylo Xavier de Freitas

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Summary

Technology professional with 10+ years in software engineering and system design for industrial and consumer-facing systems. Working in management roles in the Oil & Energy industry since 2023, navigating agile startup environments and structured corporate settings.

Work Experience

Mar 2024–Present **LLM Engineer | Founder**, *WeOptimize Tecnologia LTDA - Part-time 10 hours per week*.

Product discovery, research, and software engineering for LLM applications using cloud and self-hosted LLMs.

For Whatsapp bot implementation, integrated LangChain agents with Twilio and MCPs. LLM running on self-hosted Deepseek-R1:14b for cost reduction during the proof-of-concept phase.

Created and organized work instructions, processes, and policies for WeOptimize to enable fast onboarding and business agility.

Technology stacks: AWS, Linux, Langchain, Ollama, Docker, MCP, ReAct, Chain-of-thought (CoT).

Tooling in Use: AWS codecommit, ngrok, OpenAI API Platform, Anthropic API Platform, codex cli, claude code, and claude desktop.

Apr 2024–Present **Automation Engineer | Local IT Coordinator**, *BK Consulting - Full-time employment*.

Started working as an individual contributor in a local IT team of 5 developers, delivering solutions made with Power BI, Python, and SAP Scripting. In November 2024, began coordinating the local IT team.

I worked for Petrobras SA's Mooring Systems department through Capco for 2 months before transitioning to this contract on behalf of BK Consulting when they secured this long-term contract.

Proof of concepts, SAP Scripting and TDV-enabled SAP data extraction using Python to organize material management data (material movements, material certificates, service orders, etc.).

Jun 2022–Aug 2023 **Software Dev. Coordinator | Technology Manager**, *Deep Seed Solutions*.

Started as SW development coordinator before promotion to Technology Manager after 7 months for defining and documenting SW and IT procedures. Led a team of 8 developers; implemented code review and unit testing. Conducted financial evaluations for hardware purchases. Designed technical scope for ArcGIS 3D integration with FLOCO, having the software implementation delivered on time.

Stack: Linux, AWS, Docker, Git, Qt, C++, Python, Postgres, and SQLite.

Jul 2021–Jun 2022 **Software Development Engineer II**, *Amazon*.

Implemented features on global tax calculation services using Java and Amazon's proprietary deployment pipelines. Undertook "on-call" rotations supporting Brazilian tax calculation workloads, monitoring and responding to service alarms.

Jul 2019–Jul 2021 **Project Analyst II**, *Tata Consultancy Services*.

As Solution Architect for IoT/OT, supported VALE's Safety Transformation Program by implementing ISO CxS, TPMS, and Fleet Management technologies in earth-moving equipment fleets at S11D, Carajás, Serra Leste, and Onça Puma. Contributed to Global Geotech Program's automated dam monitoring systems.

Stack: Docker, Git, and Python.

Aug 2017–Nov 2018	**Software Developer**, *ESSS, Vixteam, Conexos.* Had multiple short-term experiences in web development across three companies. Acquired skills in Docker containerization, Java Spring Boot frameworks, and system architecture design principles.
Nov 2015–Dec 2016	**Control Systems Software Engineer**, *LYNX Process.* Implemented collision avoidance logic (C#, SQL) for large-scale industrial machinery at iron ore stockyards using non-linear optimization with GPS RTK data. Developed an algorithm generating 50% CAPEX savings by eliminating 10 lidar sensors (valued around 50k BRL each).
Sep 2014–Jun 2015	**Software Engineer I**, *Muxi Tecnologia em Pagamentos S.A..* Developed a WMS Browser for POS machines in C89. Created a custom hash table implementation that reduced device boot time from ten minutes to under twenty seconds.

Education

2024	**Executive MBA in Project Management**, *Fundação Getúlio Vargas.*
2015	**Bachelor of Engineering in Computer Engineering**, *Federal University of Espírito Santo.*

Technical Skills

Core Skills	Agile and traditional project management, cloud and back-end software engineering
Programming	Python, C, Java, C#, JavaScript, C++
Libraries	Django, FastAPI, Spring Boot, OpenGL, Pydantic, Qt, Langchain
Data Technologies	SAP Scripting, Power BI, SQL, MongoDB, PostgreSQL
Infrastructure	Docker, AWS, Git, CI/CD pipelines

Awards & Publications

Courses	UDEMY: (8.5 hours) LangChain - Develop LLM powered applications with LangChain - Aug. 31, 2024
Competitions	International Robotics: 1st place, UFES' TRUFES (2013); 2nd place, LARC Open (2013); 3rd place, LARC IEEE VSSS (2014).
Publications	Robotic Soccer Team Using a Multilayered Control Architecture, LARC, 2015; Multi-Layered Control Applied to Autonomous Robot Soccer, LARC, 2014; Introdução à Programação: Uma Nova Abordagem Usando C, Elsevier, 2014 (co-author)

Activities

Teaching	Teaching assistant for C, Python, and Haskell programming languages in Data Processing I, II, and Data Structures courses for Computer Engineering and Computer Science programs at UFES.