

ANDERSON HENRIQUE DA SILVA

Full-Stack AI Engineer | Backend (Python/FastAPI) | Frontend (React/Next.js) | ML/NLP |

Muzambinho, MG, Brazil | Global Remote Professional

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[LinkedIn](#) | [GitHub](#) | @neural_thinker

Open to international opportunities | Remote First

PROFESSIONAL SUMMARY

Full-Stack AI Engineer specializing in production-grade multi-agent AI systems, with demonstrated ability to architect, deploy, and scale intelligent platforms for complex data-driven environments. Built Cidadão.AI: 17-agent distributed system achieving 98.7% SLA and sub-180ms latency while processing 30+ government APIs. Expertise spans ML/NLP (LangChain, FAISS, BERTimbau), full-stack development (FastAPI, Next.js), and production operations (Prometheus, Grafana, distributed caching). Combine research rigor (Design Science methodology) with engineering pragmatism (SLAs, monitoring, scalability). Contributor to major AI open-source projects including LangChain, DSPy, and Instructor.

CORE COMPETENCIES

Technical Skills:

- Programming: Python (Pandas, FastAPI, Scrapy), SQL, Django, JavaScript, TypeScript, React, Next.Js, Tailwind CSS
- AI & ML: Deep Learning, NLP, Semantic Search, Predictive Analytics, PyTorch, TensorFlow, LangChain, FAISS, ChromaDB
- Software Engineering: API Design, System Architecture, Agile Development, Cloud-Native Applications, Full-Stack Development
- MLOps & Data Engineering: ELT Pipelines, Model Deployment, Vector Databases, CI/CD, AWS Infrastructure
- Cybersecurity & OSINT: Threat Intelligence, Ethical Scraping, Risk Assessment, Compliance Automation

Strategic Skills:

- Agile Methodologies (Certified Scrum Master)
 - Prompt Engineering & LLM Optimization
 - Cross-functional Collaboration & Leadership
 - Multilingual Communication
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PUBLICATIONS

Da Silva, A.H. (2025). From Commits to Cognition: A Mixed-Methods Framework for Inferring Developer Mental Models from Repository Artifacts. Zenodo (Preprint). DOI: <https://zenodo.org/records/18012186>

SELECTED PROJECTS & GITHUB HIGHLIGHTS

- Cidadão.AI — Multi-Agent AI Platform for Government Transparency

- Creator & Lead Engineer | Beta 1.0 (2025)
- Production system serving 331K+ monthly requests across distributed frontend, API, and dashboard services
- 17 specialized agents handling semantic routing, contract classification, anomaly detection — sub-180ms p95 latency
- 158K monthly function invocations; 98.7% uptime SLA
- Full stack: FastAPI, Next.js, BERTimbau, LangChain, FAISS, Supabase, Vercel Edge
- Active maintenance: security patches, performance optimization (94% image weight reduction), CI/CD pipeline

Production Links :

- <https://cidadao-ai-frontend.vercel.app/pt>
- <https://cidadao-api-production.up.railway.app/docs>

Additional projects & experiments: github.com/anderson-ufrj

PROFESSIONAL EXPERIENCE

AI & OSINT Specialist | Ruvixx, Inc.

March 2025 – July 2025 | Contract / Remote (San Francisco, CA)

- Designed AI-driven intelligence pipelines integrating NLP, semantic search, and predictive analytics for compliance and threat intelligence.
 - Developed automated OSINT workflows with Scrapy and Python, integrating multiple public and private datasets.
 - Built QA dashboards and ELT pipelines ensuring 99.5% data accuracy.
 - Applied ethical AI principles and legal frameworks to large-scale data collection.
- Tech: Python, AI/ML, NLP, FAISS, Compliance Automation, AWS

Lead in IT | Previous Roles

January 2017 – July 2024 | Muzambinho, MG

- Led digital transformation and workflow automation in hospitality and real estate sectors
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SPEAKING ENGAGEMENTS

Guest Speaker | UaiSINT Falazada Conference

"AI & OSINT: The Future of Intelligence in the Digital Age" | May 2025

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- Presented research on AI-OSINT integration, ethical ML, and human-machine collaboration in investigative scenarios.
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OPEN SOURCE

- LangChain-MaritacaAI (langchain-maritaca)
 - LangChain integration for Maritaca AI - Brazilian Portuguese language models
 - First Maritaca AI integration for LangChain ecosystem
 - Use it in python with 'pip install langchain-maritaca'
 - <https://github.com/anderson-ufrj/langchain-maritaca>

- <https://pypi.org/project/langchain-maritaca/>
 - DSPy (Stanford NLP) — PR #9124
 - Tutorial: "Building Multi-Agent Systems with Cultural Personalities"
 - Official documentation contribution
 - github.com/stanfordnlp/dspy/pull/9124
 - Instructor (jxnlg) — PR #1960
 - Feature: Cache observability hooks (CACHE_HIT/CACHE_MISS)
 - Core feature + tests + documentation
 - github.com/567-labs/instructor/pull/1960
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EDUCATION & CERTIFICATIONS

Bachelor's in Computer Science — Federal Institute of Education, Science and Technology (2022-2025)

Bachelor's & Licentiate in Philosophy — UFRJ (2014-2016)

Technical Degree in Informatics — Federal Institute of Education, Science and Technology (2010-2012)

Certifications (Aug. 2024 - Feb. 2025):

- AWS Fundamentals Specialization (AWS) - [Verify](#)
- Deep Learning for Business (Yonsei University) - [Verify](#)
- Prompt Engineering Specialization (Vanderbilt University) - [Verify](#)
- Cyber Security Fundamentals (University of London) - [Verify](#)
- Scrum Master Certification (LearnQuest) - [Verify](#)
- Mathematics for Machine Learning (Imperial College London) - [Verify](#)

Professional Affiliations:

- Member — Brazilian Computer Society (SBC)
- Member — Brazilian Society of Applied and Computational Mathematics (SBMAC)

Languages:

- Native Portuguese

- Fluent English
 - Intermediate Spanish
 - Basic Chinese
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AVAILABILITY

- Immediate availability: Full-Time (40h/week)
 - Location: Remote (Muzambinho, MG, Brazil)
 - Timezone: GMT-3 (São Paulo)
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"Technology is not just code—it is philosophy, engineered."