

# Vanja Smailovic - Portfolio



Lead AI Engineer and Applied AI Consultant

# Services

I help product and engineering teams turn ambiguous AI opportunities into shipped product capabilities:

- LLM agents and AI assistants
- Document extraction, structured outputs and RAG
- Machine learning
- Text-to-SQL and analytics agents
- Anomaly detection and monitoring products
- Applied AI prototyping and MVP delivery
- AI product discovery, evaluation and technical roadmap



# Case Studies



# 1. CEO-facing AI Executive Assistant

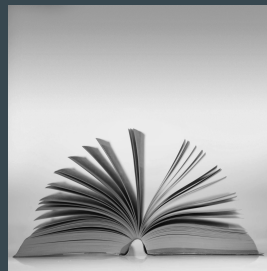
**Problem** CEO office faced high-volume, high-context information workflows around email triage and daily briefings.

**Built** Multi-agent AI assistant for email classification, briefing and source-grounded summaries.

**Tech** Python, Google ADK, Gemini, Claude, Vertex AI, LiteLLM, Pydantic, Google and Slack APIs.

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**Outcome** Active initial rollout in ~6 weeks, estimated 2.5 hours saved per week in executive email reading time.

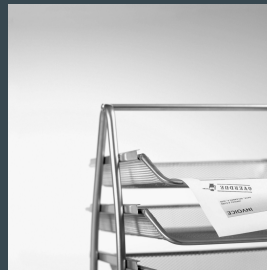


## 2. AI Invoice PDF Parser

|         |                                                                                |
|---------|--------------------------------------------------------------------------------|
| Problem | Monthly invoice extraction was manual, slow and error-prone.                   |
| Built   | Live, in-house parser converting invoice PDFs into validated structured data.  |
| Tech    | Python, OpenAI Structured Outputs, multimodal GPT-4.1, OCR, PyMuPDF, Pydantic. |

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|---------|-------------------------------------------------------------------------------------------------|
| Outcome | Reduced one FTE day of manual work to ~20 minutes, a 24x reduction, with ~99% typical accuracy. |
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### 3. Text-to-SQL AI Payments Analytics Agent

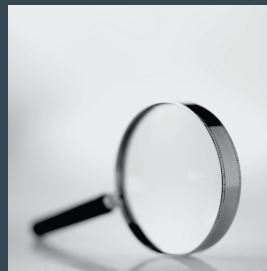
**Problem** Customers needed self-serve payments analytics without SQL or domain knowledge.

**Built** Customer-facing analytics agent translating natural language into grounded payments queries.

**Tech** Python, GPT-4o, Chainlit, tool calling, schema grounding, SQL, FAISS, light RAG over company documentation.

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**Outcome** Enabled live natural-language access to expert-level payments insights and reduced reliance on manual analytics workflows.



## 4. Payments Anomaly Detection Product

|         |                                                                                                                                         |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Problem | Merchants needed monitoring and alerting for unusual payments behavior.                                                                 |
| Built   | Customer-facing anomaly detection product for merchant payments monitoring and alerts.                                                  |
| Tech    | Python, SQL, Meta Prophet, Redshift, Cube.js, payments data transformation, querying optimization, anomaly detection, machine learning. |

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|         |                                                                                                            |
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| Outcome | Became the company's second most important product area, adopted by approximately 20 active B2B customers. |
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## 5. Credit Default Risk Modeling

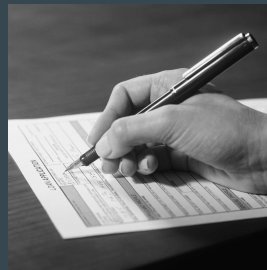
**Problem** Credit providers needed stronger risk assessment from raw bank transaction data.

**Built** Credit risk capabilities using transaction tagging, NLP classification and binary default modeling.

**Tech** Python, SQL, bank transaction data, XGBoost, BoostARoota, SHAP, AWS, Google Cloud.

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**Outcome** Supported revenue-generating credit products with more than 5 million credit decisions every year across 150 live customers and 13 markets, and supported technical delivery for a major customer acquisition.



## 6. Manufacturing Cost-Savings Regression Model

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|---------|------------------------------------------------------------------------------------------------------------|
| Problem | Inconsistent layer thickness affected quality in tungsten-carbide metal-cutting insert production.         |
| Built   | Regression analysis identifying key predictors of layer thickness from furnace sensor signals.             |
| Tech    | Python, pandas, regression modeling, statistical analysis, 50+ sensor signals, manufacturing process data. |

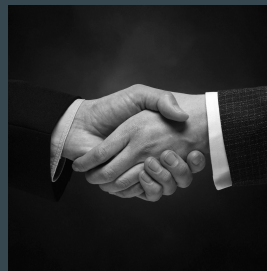
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|         |                                                                                    |
|---------|------------------------------------------------------------------------------------|
| Outcome | Supported quality-control improvements and identified estimated savings of €800k+. |
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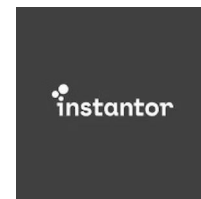


## 7. Manufacturing Sales-Prioritization Map

|         |                                                                                                            |
|---------|------------------------------------------------------------------------------------------------------------|
| Problem | Sales teams needed prioritized US machine-shop prospects for targeted outreach.                            |
| Built   | Interactive geospatial map categorizing prospects by estimated commercial potential.                       |
| Tech    | Python, web scraping, data cleaning, business prioritization logic, geospatial visualization.              |
| <hr/>   |                                                                                                            |
| Outcome | Helped sales teams navigate prospects geographically and focus outreach on higher-potential opportunities. |



# Clients



# Leadership



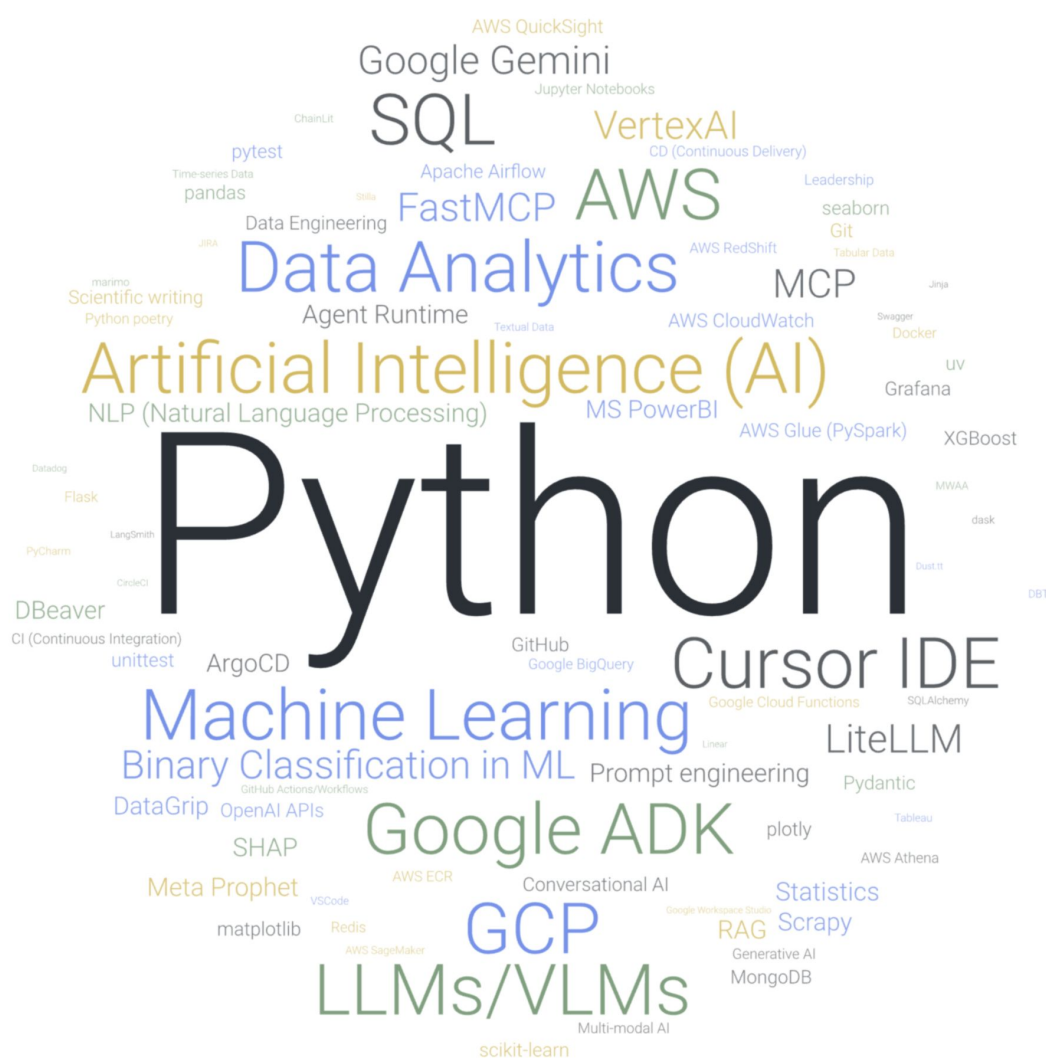
# Technical Leadership

- Led applied AI, ML and data science delivery across fintech, payments, manufacturing and private equity, from discovery to shipped products.
- Turned ambiguous business problems into scoped technical plans, prototypes and shipped product capabilities.
- Balanced technical quality, delivery speed and business value across startup, scale-up and enterprise environments.
- Worked in successfully exited startups and scale-ups with a proven track record of business impact.

# People Leadership

- Engineering management experience spanning 2+ years, including hiring, compensation, promotions and underperformance management.
- Led an AI/ML team of 4, hiring, onboarding and coaching senior, mid-level and junior data scientists.
- Worked closely with founders, senior leaders and customers, including CEO, CTO, Chief of Staff, CPO and VP-level stakeholders.
- Built ways of working that improved execution, ownership and growth, setting teams up for success.

# Technologies



# Contact

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