

TOMAS MENEZES PEREIRA

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PROFESSIONAL SUMMARY

ML and full-stack product engineer with 5+ years of experience in startups, developing AI products. Recently built and sold a B2B decision-support proptech SaaS, led end-to-end product, and co-led an eight-figure GDV real estate project exit.

TECHNICAL SKILLS

Languages: TypeScript, JavaScript, Python, SQL, MATLAB

Frontend: React, Vite, Next.js, TanStack Query/Start/Router/Table, Zustand, Zod, Tailwind CSS, Motion, Deck.gl, React Native, Expo, Plasmio, Vitest, Playwright

Backend & Infra: Node.js, Hono, PostgreSQL, Redis, pgvector, Drizzle ORM, Better Auth, BullMQ, Trigger.dev, AWS (API Gateway, S3), GCP (Cloud Run), Vercel, Docker, GitHub Actions

AI/ML: AI SDK, TensorFlow, scikit-learn, scikit-optimize, Pandas, Jupyter

Platforms & Tooling: Claude Code, Codex, Git, Cloudflare, Supabase, PostHog, Upstash, Stripe, Linear, n8n, Figma

PROFESSIONAL EXPERIENCE

PARTNER, AI PRODUCT ENGINEER

2021 – PRESENT

2B2 INVESTMENTS

Lisbon, Portugal

Full-Stack Product Engineering

Developed and sold B2B decision-support software that unified fragmented public and partner real estate data into analytical products used for market monitoring, new development investment analysis, and opportunity identification, saving teams 150+ hours per month with 50%+ increased project throughput:

- Built multi-region, proxy-enabled scraping and ingestion pipelines with CDC to continuously track thousands of launches, price changes, and other historical market movements absent from partner systems.
- Modeled canonical project, unit, and market records by merging scraped data, external feeds, and internal datasets into historical, queryable records used for development underwriting, comparable analysis, KPI tracking, and report generation.
- Created statistical dashboards (project, unit, comparative), notifications, and automations that integrated analysis data directly into team workspaces, eliminating 50%+ of manual analysis and reporting effort.
- Shipped real-time interfaces in React (Next.js) with TanStack Query/Table, Zustand, nuqs, Deck.gl: editable data grids, composable Linear-style saved filtering views with geo-shape query support, interactive charts, virtualized maps, and generative streaming interfaces.
- Implemented embedding-based comparable retrieval with pgvector for top-N similar-project discovery and semantic matching, then layered RAG comparison workflows to generate context-aware analysis across projects and market data.
- Orchestrated background LLM workflows with AI SDK and Trigger.dev for local data enrichment via generated search queries, context research, daily delta and weekly summaries, cross-team intelligence distribution, and copy generation.
- Engineered ML models for unit sale-probability forecasting, launch-performance simulation, multi-objective valuation and new-development opportunity ranking.
- Built internal AI products including meeting intelligence (transcription and adaptive client recommendations) and structured retrieval from floorplan and invoice documentation.

Strategic AI Consulting

- Advised C-suite executives at two of Portugal's largest real estate companies on internal product, data team, and innovation strategy, creating long- and short-term roadmaps for data, capital allocation, and AI initiatives.
- Guided engineering teams in the development of proprietary internal ML systems, including multi-objective AVMs, data unification strategies, and data analysis workflows for market opportunity identification.

Real Estate Development

- Co-led the development of a 17-unit residential project in Lisbon, Portugal, more than doubling the original estate value with an eight-figure GDV exit, and managed a pipeline of two additional high-value projects, overseeing fundraising and developer partnerships.

PRODUCT MANAGER

2021

UNTERNEHMERTUM

Munich, Germany

- Led a cross-functional team of 3 engineers and 2 designers, alongside UTUM's core team, to build an open data request platform MVP for the City of Munich, improving on the closed-access production model for data request and sharing.
- Shaped product requirements from 20+ discovery interviews, usability tests, and experiments conducted with Landeshauptstadt officials, city representatives, open data advocates, open-source developers, and Munich-based enterprise executives.
- Owned agile execution across ideation, pain point mapping, prioritization, opportunity testing, user-story creation, prototype implementation, and product delivery.
- Connected city hall stakeholders and external enterprises, surfacing operational requirements and high-demand datasets.

INTELLIGENT SYSTEMS RESEARCHER, RECSYS

2019 – 2021

IS4 LABS, IST

Lisbon, Portugal

- Researched deep learning recommender systems for sparse session-based environments, focusing on intent modeling and impression ranking.
- Built and benchmarked recurrent architectures (LSTM, Bi-GRU) with TensorFlow to model user intent from short- and long-term session activity context.
- Created self-attention modules enabling skip-behaviour awareness, increasing recall and interpretability via relative sequential event importance weighting.
- Developed a hybrid hyperparameter tuning and model selection pipeline combining Bayesian optimization with Gaussian processes and random search for high-dimensional, conditional spaces.
- Achieved an 85th-percentile result in predicted MRR in the 2019 ACL RecSys Challenge, using a single Google Colab GPU instance without time-leaking features, validating the approach under strict compute and evaluation constraints.

PROJECTS

sessionblocks, *sessionblocks.com*

2024

- Built and shipped a session management browser extension for power users, handling large local sessions with thousands of virtualized items. Developed a single-writer journal sync/reconciliation engine to serialize state transitions, continuously converging to browser ground truth with granular updates and optimistic UI. Supports auth and payments.
- Features include tab organization with bulk operations (move, delete, suspend), window persistence, seamless drag-and-drop between open and closed windows, duplicate detection, filtering, search, and local session import/export.

EDUCATION

MSC MECHANICAL ENGINEERING

Lisbon, Portugal

Instituto Superior Tecnico (IST)

Excellence Diploma | Dissertation 18/20

Autonomous and Intelligent Systems, Reinforcement Learning, Optimisation and Decision, Computer Vision, Systems Identification, Control Systems

ADVANCED MSC ARTIFICIAL INTELLIGENCE

Leuven, Belgium

KU Leuven

Artificial Neural Networks and SVMs, Data Mining, Brain-Computer Interfaces, Text-Based Information Retrieval

ADDITIONAL EXPERIENCE & AWARDS

- Startup Jumpstart, Babson College: Awarded a Santander scholarship for the executive entrepreneurship programme.
- European Innovation Academy: Managed a team of four, winning a Nixon Peabody award with an online micro-task platform.
- National Robotics Team Leader: Led the Portuguese national team in four worldwide RoboCup competitions (Singapore, Istanbul, Eindhoven, Joao Pessoa); designed autonomous rescue robots and mentored 50+ students.