

Benjamin Labaschin

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Personal Statement: I'm an MLE passionate about using machine learning and generative AI to transform technical challenges into high-impact solutions. I thrive on building software systems that deliver tangible results, pioneering enterprise-scale GenAI platforms, and developing ML systems that drive millions in business value.

EXPERIENCE

Principal Machine Learning Engineer Workhelix

Apr. 2022 - Present

- **Founding Engineer:** Leads core platform development at Workhelix, parallelizing highly scalable async LLM APIs and custom SOTA embedding systems, building and maintaining our internal LLM and agent deployment platform for Fortune 50 enterprise customers.
- **ML/GenAI Analytics Platform:** Architects multi-container Docker system for real-time data embedding and workflow analysis, combining proprietary "task" classification algorithms with predictive models (PyTorch, FastAPI, AWS ECR/ECS).
- **Analytics & Insights:** Develops novel complexity metrics to quantify and forecast GenAI's impact on engineering workflows, enabling data-driven insights on productivity for enterprise customers.
- **API Architecture & Data Pipeline Engineering:** Engineers high-throughput GitHub/GitLab extraction system with asyncio rate limiting and GraphQL cursor pagination, building robust task queues/concurrency controls that reduced repository processing time from 30 to 2 minutes.
- **Seed to Series A Growth:** Drives critical technical development that enabled Workhelix's growth from seed to Series A (\$75M valuation), attracting investment from AI leaders including Andrew Ng, Mira Murati, and Yann LeCun.

Senior Data Scientist Hopper

Aug. 2021 - Apr. 2022

- **Strategic Partnership Leadership:** Led ML engineering for Capital One Travel partnership, creating foundational ML systems that helped secure a \$96M investment and drove Hopper Cloud to 40% of company revenue.
- **Technical Architecture:** Designed and implemented multi-tenant ML systems including multi-arm bandits and price freeze algorithms using GCP, enabling secure and scalable travel booking solutions for enterprise partners.
- **MLOps Innovation:** Spearheaded DevOps/MLOps implementation for Hopper Cloud, establishing CI/CD pipelines and orchestration workflows with GitHub Actions and KubeFlow to support rapid scaling of the B2B platform.

Data Scientist XPO Logistics

Jan. 2021 - Aug. 2021

- **Cost Optimization & ML Systems:** Delivered \$8M in savings through optimized shipment prioritization and automated pricing systems, a result from spearheading A/B testing and ML initiatives using XGBoost.

Data Scientist Revantage (Blackstone)

Oct. 2019 - Jan. 2021

- **Investment Analytics:** Led A/B testing with power analysis and regression modeling to optimize real estate investment decisions, driving multi-million dollar property savings.
- **Analytics Engineering:** Developed Python analytics pipeline (scipy, scikit-learn) for apartment renovation ROI analysis and geodata-based warehouse investment models.

Economist Researcher / Data Scientist Arity (Allstate)

Sept. 2017 - Oct. 2019

- **Risk Innovation:** Pioneered telematics-based risk modeling for shared mobility companies, resulting in two patent applications and creating a new business vertical.
- **Innovation Recognition:** Won 2019 Hackathon for AWS-based NLP modeling, with [research](#) featured in Business Insider.

SKILLS

PROGRAMMING: Python, Java, C#, R, SQL, Shell, JavaScript, CSS, HTML

AI/ML: GenAI (LLama, Mistral, OpenAI, Claude, etc.), Fine-Tuning, PyTorch, Tensorflow, Deep Learning (Transformers, NLP), Machine Learning

CLOUD: AWS, GCP, Azure

DEPLOYMENT: GitHub Actions, GitLab, Docker, FastAPI, Flask, Modal

DBMS: PostgreSQL, MySQL, DuckDB, BigQuery, Databricks, Snowflake, Athena

TALKS & PUBLICATIONS

2025 [Building Stateful AI Agents \(ODSC West\)](#)

2025 [Managing Memory for AI Agents \(O'Reilly Media\)](#)

2025 [Extending GPTs Are GPTs to Firms \(AEA: Papers and Proceedings\)](#)

2024 [Building With AI: How I Build Quick POCs with LLMs \(Wharton Guest Lecture\)](#)

2024 [A Normie Approach to Validating LLM Outputs \(AI.Science Talk\)](#)

2023 [What Are AI Agents? \(O'Reilly Media\)](#)

2023: [Building an HTTPS Model API for Cheap: AWS, Docker, and the Normconf API \(Normconf Talk\)](#)

PATENTS

■ [Shared Mobility Simulation and Prediction System](#)

■ [Matching Drivers With Shared Vehicles To Optimize Shared Vehicle Services](#)

EDUCATION

B.A. Economics, *cum laude* - 2016, Lake Forest College, Lake Forest, Illinois

ADDITIONAL EXPERIENCE

Adjunct Lecturer, Chapman University
(Aug. 2023 - Dec. 2024)

- Developed and taught Python-based AI/ML curriculum to 30+ students, bridging academic concepts with industry applications, lessons and course materials [here](#).