

Mgr. Josef Moudřík

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Profile

I am a senior Full-Stack Machine Learning engineer and Tech Lead with 10+ years of experience in **turning Artificial Intelligence models into applications that bring value**. I specialize in designing and leading implementation of early-stage AI solutions, across full lifecycle of a product from its inception to production. Proven track record with global clients (startups, banks, Czech government).

Like building technology that brings value to clients, using AI, or whatever other tools are necessary for the job. I have both strong theoretical CS background and plenty of hands-on experience.

Project Highlights:

- Leading implementation of a modern web-based editor and a publishing platform.
- I have been prototyping AI-powered AML and Due Dilligence solutions for large international clients, such as Credit Suisse and JPMorgan Chase, as a ML PoC Tech Lead at Merlon Intelligence.
- Created a custom CRM system for a private Czech company: mobile app, web integration, Python based backend.
- I have been responsible for designing and leading implementation of the backend of an LLM-driven multimedia system for one of the largest Czech media outlets.
- I have designed and implemented an evaluation protocol for a large scale Czech (tens of M\$ / year) government tender.

Core Skills

Leadership and collaboration — Mentoring, coordination, great communication skills, empathy.

Programming — Python, JavaScript/TypeScript, Svelte, React, Dart, Scala, Clojure, C++, Java, ...

Mathematics & Theory — Algorithms, data structures, algebra, discrete mathematics, logic.

Artificial Intelligence — LLMs, embeddings, NLP, classical ML methods, applied research.

Backend & Tools — SQL/NoSQL databases, aws/gcp, Docker, Unix/Linux, Git, functional programming..

Analysis — strong analytical skills, problem decomposition, and systems thinking.

Languages — Czech (native), English (fluent, CAE Grade A), Russian.

Selected Work Experience

Lead Developer for <https://kraa.io>, 2023–present.

- Leading development of a modern browser-based editor and publishing platform.

- Full-stack, backend design, FE, infrastructure, and general system architecture; mentoring.

Freelance Consultant & Tech Lead, 2011–present.

Designed and led implementation of AI PoCs and innovative solutions for international clients in media, investment, and biotech.

Selected Projects:

- **Large Czech Media Outlet** — Led development of a LLM-driven multimedia system 2023–2024.
- **US Health/biotech startup** — Extracting actionable insights from clinical trial data, 2022–2023.
- **Large Investment company** — Mathematical modelling and team training for a large Czech investment company, 2020–2025.
- **Czech Government tender** — Designed and implemented evaluation protocol for a government institution's tender worth tens of millions of EUR, 2021.
- **Ententee** — Led development of various PoCs as an AI Consultant and Senior AI Engineer.

Senior ML Engineer, Tech Lead (PoCs) — Merlon Intelligence (CEAI Inc.), 2017–2019.

- Lead design and development of **Proof of Concept AI/NLP solutions** in a highly regulated compliance and risk management environment.
- Collaborated with global teams to deliver systems for Credit Suisse, JPMorgan Chase, Morgan Stanley.

Education

Ph.D. Studies, Advanced Machine Learning in Games, Charles University in Prague, Faculty of Mathematics and Physics, 2014–2022. Unfinished, ABD.

Master of Science — Mgr. degree, Theoretical Computer Science (specialization in Artificial Intelligence), Charles University in Prague, Faculty of Mathematics and Physics, 2009–2013.

Selected Publications

Moudřík, Neruda: **Determining Player Skill in the Game of Go with Deep Neural Networks**. Proceedings of TPNC, 2016.

Moudřík, Neruda: **Evolving Non-linear Stacking Ensembles for Prediction of Go Player Attributes**. Proceedings of IEEE SSCI, 2015.

Moudřík, Baudiš, Neruda: **Evaluating Go Game Records for Prediction of Player Attributes**. Proceedings of IEEE CIG, 2015.

Moudřík Josef: **Meta-learning methods for analyzing Go playing trends**. Master thesis, Charles University in Prague, Faculty of Mathematics and Physics, 2013.

Baudiš, Moudřík: **On Move Pattern Trends in a Large Go Games Corpus**, 2012. URL: <http://arxiv.org/abs/1209.5251>