

About me

I'm a passionate ML engineer with experience building and deploying models. I'm seeking new opportunities to help people make the most of LLMs in daily life.

Professional Experience

Software Engineer, Google (Zurich, Switzerland)

09/2022–present

- Developed prompt injection defenses, including an automatic prompt optimisation pipeline.
- Main contributor to the launch of a new Gemini feature that allows targetted modifications of model responses (achieving a 90% response acceptance rate).
- Distilled high-quality datasets for fine-tuning and reward modeling in post-training.
- Trained and evaluated handwriting recognition transformer models for handwritten math recognition (20% project).

Staff Scientist, AI - Avast s.r.o. (Prague, Czechia)

04/2021–08/2022

- Personally recognized by the CEO Ondrej Vlcek as one of a small group of employees with high growth potential.
- Responsible for internal productization of a deep learning platform based on Mill.jl co-developed by Avast and CTU.
- Developed and maintained a DL pipeline that classified malware samples, processing **all** user-reported malware samples in near-real time.

Senior ML Engineer & Tech Lead - Blindspot.ai (Prague, Czechia)

09/2015–04/2021

- Leading a team of developers working on several analytical and ML tasks for a US-based cybersec startup.
- Responsible for developing a real-time event-based anomaly detection platform.
- Contributed to the popularization of regression modeling for live election counts in Czechia.

DS12 Resident - DataScience Inc. (Culver City, CA, USA)

summer 2016

- 1 of 9 residents selected to participate in a 12-week elite, intensive residency program with 2.5% acceptance rate.
- Implemented recommendation system, churn prediction model, and scalable ETL pipeline costing 36x less per run.

R&D - Cisco Systems (Prague, Czechia)

06/2014–08/2015

- Implemented novel Bayesian inference algorithm to estimate probability of maliciousness of domains.
- Extensively used big data technologies such as Twitter Scalding and Apache Spark.

Education

Master's degree in Artificial Intelligence

09/2012–06/2015

Czech Technical University in Prague - Open Informatics (*First-class honors*)

Knowledge

Languages Czech (Native), English (Fluent)

Programming Python, C/C++, Java/Kotlin, Scala, Bash, Git, SQL, Angular

Frameworks Tensorflow, Scikit-Learn, Pandas, Jupyter

Skills LLMs, Prompt Engineering, Parameter-Efficient Methods, Machine Learning

Patents

Discovering yet unknown malicious domains using relational data. *US Patent: 10,320,823*

Modifying Source Code Using Generative Models. *US Patent: Pending*

Publications

Vojtech Letal, Tomas Pevny, Vaclav Smidl, and Petr Somol. Finding new malicious domains using variational bayes on large-scale computer network data. In *Advances in Approximate Bayesian Inference, NIPS 2015 Workshop*, 2015.