

Mateusz Romaniuk

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Skills

Languages: Python, TypeScript, JavaScript, Java, Go, C++, SQL

ML: Large Language Models (LLMs), Chain of Thought, Reward Modeling, LoRA, RAG, Computer Vision, OCR, PyTorch, TensorFlow, Hugging Face Transformers, vLLM, Unsloth

Cloud & Tools: Google Cloud Platform, AWS, Docker, Cloudflare, PostgreSQL, MongoDB, Supabase, React, Vue.js, Flask, Node.js

Experience

AI Software Engineer, myhELO Inc. – Indianapolis, IN July 2024 – Present

- Eliminated a recurring \$50K manual data-entry process by building an agent workflow to clean, normalize, and map client data, enabling import of 1M+ appointments
- Shipped on-device OCR for real-time ID and insurance scanning without third-party APIs, preserving PII and reducing scan-to-ingest latency

Founder & Lead Engineer, ShortcutBuilder – Remote November 2024 – Present

- Grew to 60+ paying subscribers by fine-tuning Qwen and Llama on a 14K+ domain dataset for a custom DSL, selecting prompts via reward-model evaluation
- Deployed quantized models with vLLM on A10G GPUs for 3x faster inference and stable serving across 1M+ data points
- Built a production web app with OTP authentication, Cloudflare hosting, and a real-time chatbot

AI Software Engineer & Team Lead, Google – West Lafayette, IN January 2022 – February 2023

- Implemented and optimized YOLOv7/YOLOX object detection, including dynamic k-matching and custom heads, with TensorFlow integrations targeting TPUs
- Integrated models into MMDetection to standardize training and evaluation across the team
- Mentored 16 members through weekly ML assignments and code reviews

Undergraduate Research Assistant, ICAN Lab, Purdue University – West Lafayette, IN May 2021 – May 2022

- Built dataset-splitting pipelines for Waymo and KITTI that preserve sequence conditions and class balance for robust MMDetection training
- Implemented per-frame Average Precision for 3D boxes to enable granular error analysis and model debugging

Projects

MenuMystic — Programmatic SEO & Menu Analysis github.com/USERNAME/menumystic

- Generated 10K+ LLM-written pages reaching 1M search impressions in 3 months
- Built a Vue.js + Flask OCR pipeline to parse menus and surface dish insights backed by Supabase across 40+ cuisines

Study Smarter Now — AI Study Platform github.com/USERNAME/study-smarter-now

- Added retrieval-augmented QA over user PDFs using a custom vector index with Google Cloud storage
- Implemented content-addressable filenames for deduplication and reliable retrieval

Education

Purdue University – BSE, Computer Engineering (Machine Learning Concentration)

May 2024