

MAX RAPHAEL MYNTER

Software & ML Engineer with 3 years of experience building developer tools, production grade ML systems, full stack apps, and open source libraries. Expertise with ML and data science including time series, LLMs, classical NLP, deep learning, and MLOps. Effective communicator of technical concepts to diverse audiences. Multidisciplinary background in physics, social sciences, and technology management. I care about programming.

EXPERIENCE

Recurser (Programming Retreat) Recurse Center NYC

01/25 – today

Becoming a dramatically better programmer. Systems programming in Rust. Open source contributions to mostly [Ruff](#), some [UV](#) and [Zed](#). Built a blockchain, an [interpreter](#) and distributed consensus algorithms from scratch. Information theory [research](#) with the AI Safety Institute at German Aerospace Center.

Tools: Rust, Systems Programming, Distributed Systems, Performance Engineering, Parallel Computing.

Software & Machine Learning Engineer appliedAI

10/22 – 12/24

Building open source dev-tools (>4k installs/mo) and full stack apps. Client work: trained and deployed ML vision and text classification models, MLOps tooling implementations, infrastructure management. Presented at PyData [NYC](#) & [Heilbronn](#). Main author of whitepaper: [Scaling Enterprise ML](#).

Tools: Python, PyTorch, TypeScript, React, SQL, GraphQL, REST, Kubernetes, Docker, GitHub Actions, Cloud, Terraform, MLFlow, Dagster, Prefect.

Data Scientist Entrix

02/22 – 08/22

Developed ML models for peak grid load prediction which are hit-or-miss responsible for ~30% of annual battery turnover due to regulatory oddities. Implemented performance monitoring and dashboards. Successfully led business critical application for energy trading security clearance. Postgraduate intern.

Tools: PyTorch, Pandas, NumPy, Scikit-learn, Jupyter, Matplotlib, Seaborn.

Quantitative Analyst Allianz Global Investors – RiskLab

01/21 – 08/21

Built generative ML models for time series to test risk management strategies. Implemented frontier research methods into internal libraries. Student employee.

Tools: Python, PyTorch, NumPy, Pandas, Matplotlib, MATLAB, VBA.

Software Engineer Cliniserve

10/19 – 01/21

Mobile and web development. Introduced automated tests and CI for a "Slack for Nurses" reducing production bugs by 84%. Intern, then student employee.

Tools: JavaScript, React, ReactNative, MongoDB, Jest, Cypress, Detox, Git.

HIGHLIGHTS

Rust Open Source Contributions

Making Python a better place

Contributing 15+ pull requests with functionality, bugfixes, and tests to [Ruff](#) and [UV](#), very fast Python tools written in Rust with 37k+ and 52k+ GitHub stars. E.g., rule [RUF102](#) implements static code analysis to detect and remove unused noqa directives. Tools: Rust, Python Tooling, Testing.

lakeFS Filesystem in Python

> 20k installs/month

Maintainer of [lakeFS-spec](#), a Python interface for lakeFS data lake. Makes remote lakeFS objects available in local filesystem and in popular libraries (e.g. Pandas, Polars, DuckDB). Includes caching and transaction context for failsafety. Recognized in lakeFS [Best of 2023](#). I was one of three maintainers, presented it at [PyData](#) and co-authored a [post](#) on the lakeFS blog. Tools: Python, lakeFS, fsspec, PyTest, GitHub Actions.

Transfer Entropy Toolbox

Information Theory Research

Productionized [implementation](#) of transfer entropy research for time series analysis to evaluate the effects of discretization of real and synthetic data. Hypothesis and regression tests between naive, NumPy/Numba optimized and parallelized C++ backends. Preparing publication with the AI Safety Institute of the German Aerospace Center. Tools: Python, C++, NumPy, Numba, Scientific Computing, Regression and Hypothesis tests, Information Theory.

ACADEMICS

Computational Social Science, Visiting Researcher UC Berkeley | GPA 4.0/1.0 US/GER

08/21 – 01/22

[Research](#): Using LLMs and traditional NLP to quantify the temporal evolution of political discourse on Reddit (accepted as PhD proposal at Oxford). Lectures: Applied NLP, Multimedia ML, Computational Genomics, Biosensory Computing.

Physics, M.Sc. & B.Sc. LMU & TU Munich | GPA 3.7/1.3 US/GER Thesis 4.0/1.0 US/GER

10/15 – 09/21

Physics, Maths, Lab Work, Scientific Programming. Advanced electives: Quantum Optics, Non-Linear Dynamics, Machine Learning, Information Theory. Extracurricular minor in statistics. Abroad at NTU Singapore. B.Sc. thesis at [CERN](#). One-year M.Sc. [thesis](#) placed at PSRC (talk) and MECO46 ([poster](#)).

Technology Management, Honors Degree CDTM | GPA 3.7/1.3 US/GER

03/19 – 02/22

Graduate add-on honors program. Hands-on entrepreneurship education via three industry projects. Organized a one semester data science elective.

Social Sciences, B.A. LU Hannover | GPA 3.3/1.7 US/GER Thesis 3.7/1.3 US/GER

10/13 – 10/16

Focus on quantitative methods and sociology of work. Electives in business administration. Loved statistics, pivoted to physics, finished this degree in parallel.

SKILLS, TOOLS & LANGUAGES

Programming Production Code: Python, Rust, JavaScript, TypeScript – **Familiar:** Haskell, C, C++, CUDA

Data Science & ML PyTorch, Pandas, NumPy, Numba, Sklearn, Jupyter, Matplotlib, Seaborn, SpaCy, Huggingface, MLFlow, lakeFS

Full Stack React (Native), Redux, Svelte (kit), Flask, NodeJS, Express, GraphQL, REST, Postgres, MongoDB, SQL, Cypress, Detox, HTML, CSS, Tailwind

DevOps Docker, Docker Compose, Kubernetes, CI / CD, Dagster, Prefect, Terraform, Azure, GCP, AWS

Languages German (native), English (C2), French (B2)