ISAAC **RILEY**

Machine Learning Engineer

- 15.06.1993
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PROFILE

Deep expertise in Python, machine learning, and Nix, complemented by proficiency in a wide array of other languages and tools. Committed to clean, maintainable software design emphasizing scalability, clarity, and robustness. Firm believer in the power of static type-checking (mypy), data models and validation (pydantic), thorough testing (pytest), and pre-commit hooks (lefthook).

SOCIALS

@yelircaasi

SKILLS

Skill	
Python	████████████
Nix/NixOS	████████████
Git	████████████
Bash	████████████
PyTorch	████████████
TensorFlow	████████████
Julia	███████████
HTML+CSS	███████████
TypeScript	███████████
Haskell	███████████
Rust	██████████

LANGUAGES

Language	Rating
English	★★★★★
German	★★★★★
Russian	★★★★☆
French	★★★★☆
Ukrainian	★★★☆☆
Spanish	★★★☆☆

EXPERIENCE

RESEARCH ENGINEER
knecon Technologie GmbH

October 2021 - present
Mannheim, Germany

Helped develop an LLM-based document analysis platform with retrieval-augmented generation and integration of external data sources.

Used AzureML, MLFlow, Gitlab CI/CD and Kubernetes for development and deployment of machine learning pipelines.

Designed, trained, and deployed the NLU-/NER-based interface for an integrated desktop search tool.

Developed a face redaction service using dlib, C++, and Python.

Created and maintained numerous utility packages and infrastructural tools for internal use.

DATA SCIENCE INTERN
Backpackertrail

October 2020 - March 2021
Heidelberg, Germany

Developed a reverse image search system for travel recommendations, built with TensorFlow.

Developed an automatic route-planning tool built with ORTools.

RESEARCH ASSISTANT
Brigham Young University Economics Department

July 2015 - May 2019
Provo, UT, USA

Implemented an XGBoost-driven system for entity matching across historical records for historical economics research. Created a pipeline for cleaning and entity recognition of patent records.

Created a pipeline for cleaning and entity recognition of patent records.

Published two peer-reviewed academic articles as a co-author.

EDUCATION

M.Sc. Computational Linguistics	University of Stuttgart	2021
B.S. Economics	Brigham Young University, Provo, UT, USA	2018
High School Diploma	James Bowie HS, Austin TX, USA	2011

OPEN-SOURCE PROJECTS

 nbcat - cat command for Jupyter notebooks, written in Go

 datethyme - ergonomic datetime types built on Pydantic, emphasizing parsing and arithmetic

 apiarium - Python toolkit for API + interfaces: 'write once, run anywhere' app as CLI, TUI, REPL, and via the Matrix protocol

INTERESTS

Linux	NixOS	Python	Pytorch	TensorFlow	Julia
Go	Haskell	Rust	Hiking	NixOS	Python