Michael Fellner

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AI-focused data scientist with four years of experience and a dual background in computer science and philosophy. I'm motivated by what A.I. architectures can tell us about ourselves — building systems that not only perform well, but whose decisions we can understand.

TECHNICAL SKILLS

Programming Languages: Python (5 years), SQL (3 years), JavaScript, C++, Java
Database and Cloud: AWS, Snowflake, Databricks, MySQL
Tools: Tensorflow, Pytorch, Pandas, Numpy, Scikit-Learn, Plotly, Matplotlib, H2o, Keras, NLTK, OpenCV
Machine Learning: Reinforcement Learning, Natural Language Processing, Deep Learning, Computer Vision

EXPERIENCE

NYU Computation & Decision Making Lab **Jan 2024 – Curr**
Research Assistant *New York, NY*

- Implementing a novel end-to-end **CNN** architecture in **Pytorch** capable of predicting changes in videos.
- Researching and implementing interpretable **deep learning** models in **Pytorch** where model decisions could be clearly understood using **Plotly** visualizations.
- Creating a new algorithm for performing inverse hierarchical **reinforcement learning** used to understand how people plan tasks.
- Authoring clear and technically detailed research and grant proposals for lab funding.

Fiserv **June 2021 – June 2023**
Data Scientist *Berkeley Heights, NJ*

- Built interactive dashboards using **SQL (Snowflake)** and Plotly/Dash for financial trend analysis.
- Prototyped a scalable cloud-based prediction pipeline on **AWS** for loan delinquency prediction.
- Automated document OCR pipeline to organize and extract information from 10K+ legal files.
- Wrote advanced **SQL** queries for deep audits of high-volume datasets.

Stevens Natural Language Processing Lab **June 2023 – Dec 2023**
Research Assistant *Hoboken, NJ*

- Developed unsupervised techniques for **BERT** fine-tuning using Hugging Face Transformers.
- Contributed to model interpretability research in large language models through lab collaboration.

INDEPENDENT PROJECTS

Detecting the movements of objects in images: https://github.com/MichaelFellner/Object_Transition_Detector
Making CNN's faster by pruning unused neurons: https://github.com/MichaelFellner/CNN_Pruning_Experiment

EDUCATION

Stevens University **Dec 2024**
M.S. Computer Science - 3.87 GPA *Hoboken, NJ*

- Courses in Algorithms, NLP, Deep Learning, Computer Vision, and Reinforcement Learning

Rutgers University **May 2020**
Dual B.A. in Philosophy (3.8 GPA) *and Cognitive Science* (3.6 GPA) *New Brunswick, NJ*

- Studied Philosophy of Mind, Language, and Cognitive Computer Science
- President of Philosophy Club and Go Club (Go rank: 3 dan)