Frederico Wieser

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WORK EXPERIENCE

Research Intern (PyTorch, JAX)

Huawei Technologies Research & Development

 $\begin{array}{c} \text{London, UK} \\ \text{Feb } 2025 \text{ - Present} \end{array}$

• Working with Noah Ark's Neuromorphic Computing group on developing Transformer variants using episodic memory, with Prof. Jun Wang and Dr. Zafeirios Fountas

Software Developer (Backend Content) (Python, SQL, NoSQL, JavaScript, Linux) London, UK Playtech Jan 2023 - Sep 2024

- Developed microservices and applications serving real-time data to millions of global users in an event-based trading system, for major sports betting companies (e.g. Paddy Power, Ladbrokes).
- Designed and implemented an asynchronous bet-building service combining multiple statistical pricing models to create new markets, with an increased average return rate of 80%. (C, Cython)
- Spearheaded new technical documentation standards across 3 teams to help onboard and mentor new team members, also conducting their interviews.

Systems Engineer (R&D) (Python, SQL, Linux, C, Google Cloud Platform) London, UK NAAMA Jun 2021 - April 2022

- Conducted dermatological research experiments with high energy lasers in a private research lab, with the aim being to improve efficacy of experiments.
- Independently developed a service to automate KPI reporting for our systems using a chatbot hosted on GCP, saving employees ≈ 10 hours a month. (LaTeX, NumPy, Matplotlib)

EDUCATION

MSc Computational Statistics and Machine Learning (PyTorch) London, UK University College London Sep 2024 - Sep 2025 (Expected)

• Developing expertise in deep learning, reinforcement learning, and probabilistic modelling, applied to high-dimensional data analysis.

BSc Theoretical Physics (Python, NumPy, SciPy, TensorFlow, Numba)

University College London

London, UK
Sep 2018 - Aug 2022

• Programmed and analysed forest fire simulations, drawing inspiration from Conway's Game of Life and producing visualizations for a comprehensive final report.

Projects

Contributor (Volunteer) (Python, PyTorch, TensorFlow, JAX, NumPy)

Unify (Open-Source Project)

London, UK

Jan 2024 - Jan 2025

- Contributed to the development of Ivy, a machine learning framework unifying others, like PyTorch and TensorFlow, enabling seamless model portability across platforms.
- Actively engage in academic paper reading groups to stay updated on the latest AI trends and research, with a particular focus on advancements in large language models.

SKILLS

Programming Languages: Python, C, C++, SQL, JavaScript, C#, Bash

Libraries & Frameworks: PyTorch, TensorFlow, Django, scikit-learn, NumPy, SciPy, Boost Tools & Software: Microsoft Office, Linux, Jupyter, HTML/CSS, AWS, Azure,

GCP, LaTeX, MongoDB, Kafka, Unity, Oracle

Languages: English (Fluent), Portuguese (Fluent)

Certifications: Machine Learning Specialisation (DeepLearning.AI)

Deep Learning Specialisation (DeepLearning.AI)