# Felix Baastad Berg

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MSc in Advanced Computing at Imperial College London with a background in mathematics and research at MIT and Harvard. Fulbright Fellow, NeurIPS 2025 author and tech founder passionate about collaborating to model and understand complex systems.

### **EDUCATION**

### Imperial College London, MSc in Advanced Computing

09/2025 - 09/2026

- · Courses and research in machine learning, high-performance computing, deep learning and computational finance.
- Fully funded through the Aker Scholarship, awarded to Norway's top graduate talents.

#### MIT, Fulbright Fellow in Mathematics

01/2024 - 12/2024

- · Research and courses in statistical machine learning, statistics, reinforcement learning and time series forecasting.
- Derived tight norm-based generalization bounds for CNNs, implemented unsupervised spiking neural networks for time series forecasting, and modeled dependencies across multiple time series.
- GPA: 5.0 / 5.0.

### Norwegian University of Science and Technology, MSc in Applied Mathematics

08/2019 - 06/2025

- · Specialization in statistics with numerical methods, stochastic modeling, optimization and linear methods.
- GPA: 4.8 / 5.0 (estimated top 5 students in Norway's most competitive MSc in mathematics).

### PUBLICATIONS & NOVEL RESEARCH EXPERIENCE

# Neurips 2025, Publication

09/2025

• "Deep RL Needs Deep Behavior Analysis: Exploring Implicit Planning by Model-Free Agents in Open-Ended Environments". https://arxiv.org/abs/2506.06981

# Harvard University, RajanLab

08/2024 - 07/2025

- · Identified long-range predictive dependencies, with models encoding signals up to 100 time steps ahead.
- · Analyzed hidden states of LSTM neurons using statistical ML for foraging RL agents using PPO.
- Co-authored on abstract to COSYNE 2025 seminar and poster to Lyon conference.

#### Norwegian University of Science and Technology, Masters thesis

11/2024 - 06/2025

- Developed a novel continuous attractor network module in JAX, constructing a Fourier basis for state spaces.
- · Implemented and trained deep RL agents, deploying large-scale simulations on Harvard's HPC GPU Clusters.
- Analyzed recurrent-memory dynamics to discover predictive temporal patterns in continuous attractor networks.

# PROFESSIONAL EXPERIENCE

# Kateter, Co-founder (CTO → COO / CFO)

05/2022 -

- Built and scaled digital learning platform reaching 10,000+ users and 30+ employees (https://kateter.no)
- Led development of an interactive math visualization engine using Three.JS.
- · Managed company finances, payroll, and cash flow, investing and optimizing capital allocation.
- Taught and recorded university-level math courses viewed by thousands of students.

#### Firda, ML intern (Summer & Winter)

01/2023 - 08/2023

- · Built and deployed a LangChain-based LLM system retrieving relevant document and sources.
- · Designed metadata-rich JSON representations enabling structured retrieval and feature extraction for LLM outputs.

### Heimstaden, Data Scientist - Investment Team (Intern → Part-time)

06/2022 - 12/2022

- Developed models for German rent price strategy at Europe's second-largest residential real estate company.
- Performed data preprocessing and feature engineering in SQL inputed in the model.
- Delivered a two-day technical workshop in Berlin to the German investment team.

### Atlas, Data Science Intern

06/2021 - 08/2021

- Designed algorithms to analyze geospatial satellite data for renewable energy optimization.
- Implemented in Python (Django, GeoPandas) and SQL for production deployment.

### Penumbra, Lead of Developement of Simulator

09/2020 - 05/2021

- Led development of a rocket flight simulator for a student-built rocket (Propulse NTNU) that ranked 2nd of 75 teams at Spaceport America Cup 30K COTS.
- Programmed in C++ and developed Computational Fluid Dynamics (CFD) simulations.

# **HONORS**

**Aker Scholarship,** Full-funding from Norwegian #1 top talent graduate program.

10/2024 -

Fulbright Scholarship & Janson Legat Scholarship, Awarded for graduate study at MIT.

01/2024 - 12/2024

Norwegian Finals of Physics Olympiad, Ranked as Norway's top high school physics students. 03/2019

# **TECHNICAL SKILLS**

**Programming Languages:** Python, C++, Javascript, R, SQL, Bash

Libraries & Tools: JAX, NumPy, PyTorch, Sklearn, Slurm, DJANGO, Pandas, Git, LangChain, CFD