

EDUCATION

University of Cambridge

MPhil in Machine Learning; Grade: Distinction (~ top 3 of cohort)

Cambridge, England

Oct 2024 – Aug 2025

- Dissertation: Transferable Neural Transports for Parallel Tempering
- Relevant courses @Cambridge: Reinforcement Learning, Deep learning and Structured Data, Probabilistic Machine Learning, Geometric Deep Learning, Computational Statistics.

Vrije Universiteit Amsterdam, VU

BSc in Mathematics; Grade: Cum Laude

Amsterdam, Netherlands

Sept 2021 – June 2024

- Honors Program with additional 30 ECTS in Advanced Computer Science courses.
- Relevant courses @VU: Bayesian Statistics, Dynamical Systems, Topology, Complex Analysis, Fourier Analysis, Multivariable Calculus, Group Theory, Differential Geometry.

Nanyang Technological University, NTU

Exchange Semester in Machine Learning; Grade: A/A+

Singapore, Singapore

Aug 2023 – Dec 2023

- GLOBE scholar - Merit-based scholarship.
- Coursework @NTU: Algorithm Design & Analysis, Machine Learning, Neural Network & Deep Learning, Natural Language Processing, Modelling & Control.

RESEARCH EXPERIENCE

Transferable Neural Transports for Parallel Tempering

Master's Dissertation supervised by Prof. José Miguel Hernández-Lobato

Cambridge, United Kingdom

Apr 2024 – Aug 2025

- Accelerating parallel tempering (PT) with generative models that morph coordinates between adjacent temperatures to increase swap acceptance rates and improve mixing. Code | Project.

gRNAdex: eXpressive, Biologically-eXtensible gRNAdex

Research Project supervised by Prof. Pietro Liò

Cambridge, United Kingdom

Nov 2024 – Mar 2025

- Proposed gRNAdex, an improved version of gRNAdex, incorporating better geometric expressivity, universal representation, and sampling robustness. Code | Project.

Centre de Recerca Matemàtica, CRM

Undergraduate Research supervised by Dr. Alexander Roxin

Barcelona, Spain

Jan 2024 – Aug 2024

- Researched how variability in synaptic connectivity can enhance the memory storage capabilities of recurrent neural networks (CA3 region of the hippocampus). Code | Project.

Various Research & Open Source Projects

2022 – 2024

- **Reinforcement Learning:** Model-free RL algorithms across classic grid-world scenarios. Code.
- **Humanity's Last Exam:** Domain-specific questions to expert-level AI reasoning benchmark. Paper.
- **Bayesian Inference:** Scalable variational methods and dimensionality reduction in high dimensions.
- **Speech Recognition:** Built end-to-end ASR system using CTC on TIMIT dataset.
- **Medical Image Segmentation:** U-Net-based segmentation of glomeruli in kidney tissues Code.
- **Domain Adaptation:** Adversarial domain adaptation for cross-domain sentiment classification Project.
- **Mathematical Neuroscience:** Simulated spatial firing patterns across neural fields Project.
- **AI Safety:** ML Safety Scholar at CAIS; studied power-seeking AI and existential risks. Blog.
- **Neural Network Theory:** Research internship at ANC; geometry of decision boundaries in NNs.

TEACHING EXPERIENCE

Vrije Universiteit Amsterdam, VU

Amsterdam, Netherlands

Teaching Assistant in Probability Theory

Feb. 2023 – Jun. 2023

Teaching Assistant in Single Variable Calculus and Linear Algebra

Sept. 2022 – Jan. 2023

- Led weekly sessions for 20-40 students, reviewing lectures and assisting with problem sets.

INDUSTRY EXPERIENCE

Altan

Barcelona, Spain

Founding AI Engineer

Jan 2024–Oct 2025

- Led technical development from inception through early product deployment; architected and implemented core ML infrastructure including evaluation pipelines. Helped raise €2.5M in seed funding.

Outlier AI (Scale AI)

Remote

Subject Matter Expert Contributor

Jan 2025 – Present

- Contributing to AI training datasets across mathematics, physics, and coding domains.

Freelance ML Engineering Consultant

Remote

Independent Consultant

2021–Present

- Developed multi-armed bandit algorithms for marketing campaign optimization, among other ML consulting projects for startups and SMEs.

OUTREACH AND SERVICE

Menú Por El Planeta (non-profit)

Barcelona, Spain

Co-Founder

Sept 2019–Jun 2021

- Non-profit organization that assists Spanish universities in transitioning to a more sustainable food offer.
- Responsible for fund-raising, organisation, and strategic decisions. Organized talks, conferences, and group readings to promote the moral consideration of non-human animals.

SELECTED HONORS

- **MPhil Distinction** 2025
Graduated with Distinction from the MPhil in Machine Learning program at the University of Cambridge.
- **Y Combinator AI Startup School** 2025
Selected to attend the YC AI Startup School in SF with speakers from OpenAI, DeepMind, and Tesla.
- **Nova 111 Student List** 2025
Recognized among the Top 10 students under 25 in Mathematics, Data Analytics and Physics in Spain as part of the Nova 111 Student List 2025. Details
- **BSc Cum Laude** 2024
Graduated Cum Laude, ranking 2nd out of 113 students in the BSc program in Mathematics.
- **CRM Fellowship Award** 2024
Awarded a grant to conduct Undergraduate Research in Computational Neuroscience.
- **GLOBE Scholarship** 2023
This scholarship is intended for talented students who want to study at a partner institution. Awarded to 10 students (out of ~1000 applicants) within VU Amsterdam. €5k of funding for living expenses
- **Honorable Mention at AI Safety Public Materials Bounty.** 2023
\$1K award for my blog post Power-Seeking AI and Existential Risk, published on LessWrong.
- **Long-Term Future Fund, LTFF** 2022
\$2K scholarship for pursuing projects related to ML awarded by Open Philanthropy Project.
- **Machine Learning Safety Scholarship** 2022
\$5K stipend to complete ML courses from MIT and the University of Michigan
- **Science Immersion Program in Mathematics** 2018
Scholarship awarded by Spanish Science Ministry for outstanding academic achievements, enabling attendance at university-level courses in physics and mathematics while still in high school.

SKILLS

Languages

- **Spanish** - mother tongue
- **English** - professional proficiency
- **Italian** - professional proficiency
- **Chinese** - beginner

Programming Languages

- *Python, Javascript, C, C++, Scala, Spark, Kotlin, SQL, HTML, CUDA, VHDL, MIPS assembly*
- *ML libraries: Pytorch, JAX, TensorFlow, Pytorch Lightning, Weights and Biases*
- *Neural Network Simulation Tools: NEST, Brian, NEURON*