Victor Lemaître

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Education

Paris Dauphine University Paris,France

- *First year of Master in Computer Science and Mathematics (Master I2D)* *Aug. 2024 – now*
  Expected graduation date for the second year is may 2026
  - **Relevant Courses**: Machine Learning, Artificial Intelligence (GOFAI), Convex and combinatorial optimization, Game Theory, Decision Theory, Graph Theory

Paris Dauphine University Paris, France

- *BSc Computer Science and Mathematics; Passed with honors* *Aug. 2022 – July 2024*
  (ranked 14th out of 201 in the first year and 10th out of 39 in the second)
  - **Relevant Courses**: Data Analysis, Semi-structured Data, Functional programming, Linear Algebra, Probability Theory

Uppsala University Uppsala, Sweden

- *Exchange program in Computer Science and Mathematics; Passed 4 out of 6 classes with highest honors* *Aug. 2023 – Jan. 2024*
  - **Relevant Courses**: Databases system, Differential equations

Additional Education

AI safety Sweden, AI safety fundamentals Uppsala, Sweden

- *Studied technical aspects of AI safety and alignment. Conducted a research distillation project on shard theory.* *Sept. 2023 - Jan. 2024*

Andrej Karpathy, Neural Networks: Zero to Hero

- *13 hours of youtube videos giving in-depth explanations of pytorch's internals, backpropagation and transformer architecture. Reimplemented the multi-head attention layer from simple tensor operations. Used chain of thought to teach a small transformer the addition of two numbers* *Feb. 2024 - April 2024*

Experience

Summer research internship Paris Dauphine university, France

- *Improved the neural network behind AstraZeneca's retrosynthesis tool Aizynthfinder by generating large amount of synthetic data* *May 2024 - Sept. 2024*
  - **Relevant skills**: TensorFlow, Numpy, Pandas

Personal project

- **Interpreting an MLP trained on modular addition** : Analyzed how a one-layer MLP computes modular addition using Fourier transforms. Used PyTorch hooks to investigate hidden layer activations and identified key frequency patterns used by neurons

Programming Skills

- **Languages** (From most to least proficient): Python, C, Haskell, Java, OCaml, SQL, R
- **Libraries & Frameworks**: Pytorch, Tensorflow, Numpy, Pandas, Matplotlib