

# VLADIMIR IVANOV

## EDUCATION

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### École Normale Supérieure Paris

- Graduate Computer Science 2023-2024
- Undergraduate Computer Science & Mathematics 2022-2023

### Lycée Louis-le-Grand

- Undergraduate Mathematics & Computer Science & Physics 2021-2022
- (Classe Préparatoire MP2I)

## INTERNSHIPS

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### Realizability Interpretation of the Countable Axiom Of Choice

Jun-Jul 2023

- Theoretical computer science research.
- Formalization in Coq.

## TRAINING

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### Silver and bronze International Mathematical Olympiad (IMO) medals

- Also participated in other international mathematical olympiads (RMM, JBMO, MYMC).
- Participated in national computer science competition (Prologin).

### ML4Good camp by EffiSciences

- One week long hands on technical AI safety camp.
- PyTorch, LLMs, mechanistic interpretability, conceptual safety.

### 2022 Xena Project Undergraduate Workshop

Imperial College, London

- One week long hands on Lean theorem prover workshop.
- My team worked on the Shannon-Lovász capacity theorem.

## PROJECTS

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### Replication of Towards Monosemanticity with Dictionary Learning

- Replication of Anthropic's sparse autoencoder paper on the first layer of TinyStories-1M. [GitHub](#)

### Investigating the Influence of Dropout on Xor Probes in Neural Networks

- Small original research project, somewhat conclusive results. [GitHub](#)

### PetitC Compiler

- Compiler of a subset of C.
- Semantics formalized and proven to be deterministic in Coq.
- Work in progress towards fully certifying the compiler.
- [GitHub](#)

### Ahlsweide-Zhang Formalized in Lean

- Collaboration.
- GitHub

## **TEACHING**

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**Math olympiad classes at Animath and Lyon Discrete Math Club.**

**Assistance with AGI Safety Fundamentals at ENS Paris**

## **COMMUNITY ENGAGEMENT**

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**Member of EffiSciences**

- EffiSciences is a nonprofit effective altruism organization funded by Open Philanthropy.