

# THOMAS FOREST

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<https://tamotoo.github.io>

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## WORK EXPERIENCE

### Freelance

2024

- Creation of videos to visualize mathematics courses using the Manim library

### Research internship, CEA-List (Grenoble, France)

Aug 2023 - Feb 2024

- Digital simulation of human behavior based on a cognitive architecture
- Development of a reinforcement learning environment using Gymnasium
- Benchmark of the best RL-algorithm for the specific task (A2C/PPO...)

### Internship, Volvo (Belley, France)

Feb 2021

- Performed serial tasks on an assembly line

### Internship, Université Savoie Mont-Blanc (USMB) (Chambéry, France)

Mar 2018

- Creation of a fully functional ChatBot using the university's servers (PHP/SQL)

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## PROJECTS

### Implementation of deep learning algorithms

- "From-scratch" re-implementation of the reinforcement learning algorithms Deep Q-Network (DQN) and Deep Deterministic Policy Gradient (DDPG) as well as a Transformer using PyTorch only.

### AI agent for a board game (Divercité)

- Participation in an AI competition. Implementation of a min-max algorithm, development of a Reinforcement Learning Agent. Finished in the top 10.

### Traffic sign recognition system

- Creation of a dataset of annotated images, training of models using Machine Learning and then using CNNs with a 97.35% success rate for classification.

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## EDUCATION

### Polytechnique Montréal

Aug 2024 - Aug 2026

- Double Degree - Professional Master's Degree in Computer Engineering
- Specialization in Artificial Intelligence and Deep Learning

### Université de Technologie de Compiègne (UTC)

Aug 2022 - Aug 2026

- Master Degree in computer engineering
- Specialization in Data Science & Artificial Intelligence

### Université de Technologie de Belfort-Montbéliard (UTBM)

Aug 2020 - Aug 2022

- General engineering courses

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## ADDITIONAL INFORMATION

- **Programming languages:** Python, C++, C#, C, R
- **Libraries:** PyTorch, NLTK, NumPy, Pandas, Matplotlib, OpenCV, Seaborn
- **Technologies:** Reinforcement Learning, Deep Learning, LLM, Data Visualization, Weights & Biases, Git
- **Languages:** French (Native), English (Certified)