# LUCAS BERTINCHAMP

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#### **OBJECTIVE**

Final-year computer science student seeking a 4-month internship to complete my degree. I'm eager to apply my skills in AI, machine learning, and software development to real-world projects. My goal is to gain practical experience and contribute effectively to a dynamic team.

#### **EDUCATION**

# École Polytechnique de Montréal - Montréal, Canada

Aug 2023 - Present

Double degree: Master of Engineering in Computer Science (Current GPA: 3.94/4)

# École des Mines de Nancy - Nancy, France

Sep 2021 - July 2023

Mines Civil Engineering Degree - Generalist engineering school with a solid scientific core and a specialisation in computer science.

# Lycée Faidherbe - Lille, France

Sep 2019 - July 2021

CPGE - A 2-year course to prepare for the national entrance examinations to France's leading engineering schools. Majors in Advanced and Applied Mathematics, Computer Science and Physics.

#### EXPERIENCE AND PROJECTS

### AI Methods and Algorithms

Sep 2023 - Dec 2023

École Polytechnique de Montréal

Montréal, Canada

Creation of an intelligent agent capable of playing the Abalone board game. Implementation of the Minimax, Alpha-Beta Pruning and Monte-Carlo Tree Search algorithms and development of search heuristics.

## Individual scientific project in robotics and artificial intelligence

Sep 2022 - June 2023

Techlab Mines Nancy

Nancy, France

Development of algorithms based on reinforcement learning to enable a quadruped robot to move autonomously towards a target while avoiding obstacles. Work carried out in simulation but also on real robots.

#### Collaborative project: Animation and video game technology

Jan 2023 - May 2023

**ARTEM Campus** 

Nancy, France

Creation of a "Mario like" video game on Unity in collaboration with students from the campus art and design school. Implementation of a Game Design Document and development of all aspects of a game.

#### Operator Internship

Jan 2022 - Feb 2022

Descaform

Liévin, France

One month internship to discover the working environment in a wood processing workshop.

Missions: Machine work, handling, quality control / Skills: Teamwork, listening, decision-making

#### **SKILLS**

Languages

French: Native, English: IELTS C1

Programming Languages

Python, HTML/CSS/JS (NextJS), SQL, C#, Java

Development Environment

Google Colab, Jupyter Notebook, Linux, Unity, Unreal, Visual Studio, VSCode

Librairies/Tools Keras, Matplotlib, NumPy, Pandas, PyTorch, Scikit-learn, Tensorflow

#### MISCELLANEOUS

- MOOC Project Management certification awarded by the École Centrale de Lille, France (December 2021)
- Participation to Advent of Code 2022 and 2023: Solve 25 challenges of increasing difficulty, requiring a variety of computer skills to create efficient algorithms under time constraints. Available on my GitHub here.