Jules CASSAN

AI & Robotics enthusiast with a Master's in AI, Robotics, and Decision Support. Specialized in reinforcement learning, multi-agent systems, and machine learning. Experienced in research and software development, with hands-on contributions in simulation, procedural generation, and software benchmarking. Actively seeking any opportunity or any role in AI.

PERSONAL INFORMATION

Nationality: French
Holding a B driving license

SKILLS

PROGRAMMING LANGUAGES

- Python (numpy, matplotlib, pandas, pytorch, sklearn, library creation, and more)
- Java
- C # (Unity)
- Web Frontend (HTML, CSS, Javascript)
- Bash
- SQL, SQL3, XML
- GAML (GAMA)
- C

KNOWN CONCEPTS

- Image processing
- Probability and statistics algorithms
- Multi–agent systems / Distributed agents (MAS)
- Machine Learning (Regression, Markov chains, reinforcement learning, and more)
- Game Theory
- Serious Games
- Virtual Environments
- Large Language Model (LLM)
- Operations Research (Linear programming, Graph theory)

DEVELOPMENT & TOOLS

- Object–oriented programming
- Functional programming
- Proficiency in Git, Github, Gitlab
- Continuous integration (Gitlab pipeline / Github action)
- Unit testing
- Pre–commit hook
- Agile software development

LANGUAGE

- French: Native language
- English: Proficient (B2)

INTERESTS

- Sci–fi movies
- Cooperative games
- Badminton

CONTACT

- (+33) 7 50 47 61 88
- jules.cassan@hotmail.com
- White-On (github.com)
- Website-Portfolio

EDUCATION

- **Master's Degree in Artificial Intelligence (AI, Robotics, Operations Research, Decision Support) -** Sorbonne University (Paris 6), 2021-2024
- **Bachelor's Degree in Computer Science -** Sorbonne University (Paris 6), 2019-2021
- **Preparatory Class (PCSI) -** Jeanne d'Albret High School, Saint-Germain-en-Laye, 2018-2019

EMPLOYMENT HISTORY

- **Developer at Hexamind both on intern project and at BNP.** Python project on LLM and Agents - Mission at BNP - Starting March 2025 - full time
- **Primary School Supervisor & Homework Assistant.** Supervising students and assisting with homework, September - March 2025, 10 hours per week.
- **Internship at INRIA Lyon (Research Laboratory) in the CHROMA team, supervised by Olivier Simonin.** Developed reinforcement learning (RL) models for autonomous vehicles navigating through crowds in simulation.
- **Internship at LIP6 (Research Laboratory) supervised by Pierre-Henri Wuillemin**. Improved a benchmarking tool for evaluating computational efficiency of various software libraries , February-September 2023, Paris-Jussieu, full-time.
- **Part-time employee** at La Pizza du Dimanche Soir. Managed hybrid work tasks, including customer service and logistics. August 2022 - February 2023, Yvelines (25 hours per week)..
- **Seasonal volunteer firefighter.** Assisted in the organization and operation of a large-scale vaccination center. Jouy-le-Moutier, summer 2021, full-time.

PERSONAL AND STUDENT PROJECTS

- **Case study on a multi-agent system using the Dedale tool.** Developmental skills: Multi-agent coordination in an asynchronous environment. Team project - 1 month
  https://github.com/MRVNY/Fosyma
- **Designed and developed a custom Python library to encourage developers to achieve 100% type coverage** Developmental skills: Python, pre-commit hook, git.
  https://github.com/White-On/pytypegauge
- **Engineered a Wave Function Collapse algorithm for procedural generation.** Developmental skills: procedural generation, information theory. Solo project - 1 week
  https://github.com/White-On/Basic_Wave_Function_Collapse
- **Built an interactive web-based benchmarking tool for software libraries (GenBenchSite).** Developmental skills: HTML, CSS, JavaScript, D3, Bayesian network. Solo project - 2 to 3 month
  https://github.com/White-On/GenBenchSite