Pierre Averty
PhD Application
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LinkedIn | GitHub

RESEARCH EXPERIENCE

MASTER'S THESIS: ONE-SHOT OBJECT RECOGNITION
| University of Vienna | Supervisors: Prof. D. Karagiannis, Assoc. Prof. M. Ouziri
Feb 2024 – July 2024 | Vienna, Austria
- Designed a ResNet50Encoder-based framework for robust real-time object identification.
- Exploring diverse OSL and computer vision techniques.

GRADIENT BANDIT ALGORITHMS FOR NON-STATIONARY ENVIRONMENTS | Mathematics of Vision and Reinforcement Learning Research Project
2023 – 2024 | Vienna, Austria
- Investigated exploration-exploitation trade-offs under shifting reward distributions.

ACADEMIC PROJECTS

PREY-PREDATOR MULTI-AGENT SIMULATION | Université Paris Cité
Jan–May 2022 | Paris, France
- Developed Unity-based ecosystem with emergent agent behaviors.
- Implemented a logic-based agent AI.

EDUCATION

UNIVERSITÉ PARIS CITÉ
Master's Degree in Data, Knowledge, and Intelligence | Ranked first in cohort (Major de promotion)
2022 – 2024 | Paris, France
With Distinction (Très Bien)

WIEN UNIVERSITÄT
Circle-U Exchange Program, second Year of Master's in Data Science
2023 – 2024 | University of Vienna, Austria
Exchange program in collaboration with Université Paris Cité to pursue advanced AI topics during the second year of Master's degree.

UNIVERSITÉ PARIS CITÉ
Bachelor of Computer Science
2021 – 2022 | Paris, France

UNIVERSITÉ GUSTAVE EIFFEL
DUT in Multimedia and Internet Professions
2019 – 2021 | Champs-sur-Marne, France

LANGUAGES

French: Native Speaker • English: Fluent • German: Beginner (Currently learning)

SKILLS

TECHNICAL SKILLS AND TOOLS
Python • Java • JavaScript • HTML • C • C# • C++ • JavaScript • SQL • Julia • Datalog • Latex • PyTorch • TensorFlow • Keras • JAX • Transformers • scikit-learn • OpenCV • NumPy • Matplotlib • PySpark • Jupyter Notebook • Unity • Pandas

RELEVANT COURSES
Knowledge Representation and Reasoning • Mathematics of Vision and Reinforcement Learning • Machine Learning • Non-Monotonic Reasoning • Description Logics • Knowledge Extraction • Network Security • Networks and Services • Advanced Algorithms • Mathematics for Data Science • Optimization for Data Science • Probability and Statistics for Engineers • Artificial Intelligence • Big Data

RESEARCH INTERESTS

Reinforcement Learning • Non-stationary Environments • Lifelong Learning • Multi-agent Systems • On-edge Computing • Transfer Learning • Decentralized Learning • Federated Learning

PUBLICATIONS

ENHANCING THE SCENE2MODEL TOOL: A RESNET50ENCODER-BASED ADD-ON FOR FLEXIBLE OBJECT RECOGNITION IN DESIGN THINKING
Book Chapter | Springer 2025
One-shot learning for flexible object recognition in design thinking workshops.

REFERENCES

PROF. DIMITRIS KARAGIANNIS
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