Maurin Gilles

\moʁin ʒil\ (Standard French)
\mɔʁinə‿ʒil\ (Marseille accent)

Manufactured in Marseille, France,
Deliverable worldwide.

Contact ↴

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and most importantly, for film amateurs:
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Education ↴

2024 - 2026 **MEng in IT & System Modelling**
Specialised in Optimisation & AI
ISIMA (Clermont Auvergne University), France

2025 - 2026 **MSc in Computer Science**
International track
Clermont Auvergne University, France

2021 - 2024 **BSc in Computer Science**
Clermont Auvergne Univeristy, France

A detail of all the courses attended and the grades obtained is available at:
https://mauringls.github.io/transcript_detail.pdf

Temporary Positions (internships) ↴

04/2026 - 09/2026 **Research group for Reasoning, Rationality & Science**
Ruhr University Bochum, Germany
Supervisors: Christian Straßer, Dunja Šešelja

04/2025 - 08/2025 **Research group for Robophilosophy & Integrative Social Robotics**
Aarhus University, Denmark
Supervisor: Johanna Seibt

Research Projects ↴

My research experience is limited to projects during my academic cursus and my internships. Therefore, I have no official publication (yet), although some of these projects included the writing of a paper as an outcome. Links to these relevant outcomes are included for each project.

2026 (ongoing) **Probing the Limits of the Lie Detector Approach to LLM Decepetion**
Part of my internship at Ruhr University Bochum, Germany
Co-authoring a revision of the abovementioned paper by and with Tom-Felix Berger
Expected outcome: publication and submission to the AIES conference

2026 (ongoing) **Computational Models of Argument and Agent-Based Model Integration**
Part of my internship at Ruhr University Bochum, Germany
Expected outcome: publication

2026 **Exploration of Triangular Grids by a Swarm of Luminous Robots with Common Chirality**
MSc research project, supervised by Anaïs Durand
Outcome: article-like report: *https://mauringls.github.io/triangular_grid_exploration.pdf*

2025 **LLM-driven Agents for Psychotherapeutic Purposes**
Part of my internship at Aarhus University, Denmark
Outcome: internship report: *https://mauringls.github.io/risr_internship_report.pdf*
Expected publication

2025 **Intention-Oriented Perspectives for Mechanistic Interpretability**
Part of my internship at Aarhus University, Denmark
Outcome: internship report: *https://mauringls.github.io/risr_internship_report.pdf*

2024 **Dynamic Query Optimisation in Data Integration Systems**
MEng research project, supervised by Maxime Buron and Jean-Philippe Gayon
Outcome: article-like report: *https://mauringls.github.io/dynamic_query_opti_dis.pdf*

Computer Science Skills ↴

Programming

I mainly code in **Julia**, for it matches my needs on every possible aspect.
I also know (ranking from best to least mastered) Python, Java, MATLAB, C, C++, OCaml, Kotlin and Lisp.
Hopefully I should never add JavaScript to this list.

I am comfortable with parallel computing and GPU programming.

AI.

I have studied many classic models and architectures from Machine Learning (Naive Bayes, SVM, Random Forests, etc) to Deep Learning (MLP, CNN, Transformers...) and some modern improvements (Bayesian networks, RAGs...). I have also studied the question of explainability by the angle of Mechanistic Interpretability.

I have also studied symbolic strategies, especially logic, including non-classical logic (modal, fuzzy, temporal, quantum), and main concepts of KRR, including programming in Prolog/Datalog.

I know and have implemented basic Reinforcement Learning algorithms (Q-Learning, SARSA, Monte-Carlo), and Genetic Algorithms.

Optimisation

I know classic methods for combinatorial optimisation (simplex, branch & bound), linear and non-linear optimisation (basically gradient descent and its variations), with or without contraints.

I have also advanced knowledge in optimisation problems in graph theory, and some experience with dynamic programming.

Data Science

I have experience with many DBMS (Oracle, Postegres, MariaDB, MongoDB, Redis, Neo4j) and their corresponding DQL.

I also know how to use Databricks, Microsoft Azure, Power BI and Tableau, but I hope that going in research rather than industry will allow me to never touch these things again.

Miscellaneous

I am comfortable with bash and Linux operating systems – I use Arch btw.
I master html/CSS and LaTeX at an intermediate/advanced level.
I also attended advanced courses on algorithmics/complexity and calculus, that I don't know where to mention.

Languages ↴

My mother tongue is **French**, for which I have an advanced level in grammar.
I am proficient in **English**, certified C1 at TOEIC (970/990)
I have extremely basic groundings in Spanish, Italian and German. I can read Hebrew phonetically.

Referees ↴

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