Le Borgne-Larivière Clément

GITHUB | clement.leborgnelariviere@gmail.com

06 95 52 00 76 | Driving license (Category B) | Toulouse 31000 | 04/11/2002

SKILLS

PROGRAMMING LANGUAGES
Python • OCaml • Fortran
MATLAB • Shell

ENVIRONMENTS
LaTeX • Docker • VS Code
Github • Gitlab

PYTHON LIBRARIES
PyTorch • Scikit-learn • Lightning
Pandas • NumPy • SciPy

SOFTWARE
QGIS • HEC-RAS • COMSOL
FLUENT • Paraview • Simulink
STAR-CCM+ • IcemCFD

LANGUAGES
French (Native) • English (Fluent)
Spanish (Intermediate) • Mandarin (Basic)

ACADEMIC FIELDS
Ecotoxicology
Carbon footprint & LCA analysis
Stochastic processes
Optimization
Finite volume / finite difference methods
Thermodynamics
Fluid mechanics
Transport and hydraulics in porous media
Ecohydraulics
Pressurized flow hydraulics
Open-channel hydraulics

ACTIVITIES

INTERESTS
Sociology • Economics
Geopolics • Mathematics
Fantasy novels • Board games

PRACTICES
Piano • Guitar • Singing
Beach Volley • Badminton
Climbing • Hiking

EDUCATION

ENSEEIHT | Engineering school
September 2022 - September 2026 | Toulouse
- Department of Fluid Mechanics, Energy and Environment
- Environment option

ENSAT | Agricultural engineering school
September 2025 - September 2026 | Toulouse
- Master of Sustainable engineering and systems approach

EXPERIENCE

CERFACS | Research team GLOBC
March 2025 – July 2025 (Gap year) | Toulouse
- Development of XTCLIM: climate anomaly detection Convolutional Variational AutoEncoder for european digital climate twin project InterTwin

MÉTÉO-FRANCE | R&D team DSM/LabIA
September 2024 – February 2025 (Gap year) | Toulouse
- Data analysis (Gridded tensor of atmospheric variables)
- Development of a LLM for automated weather bulletin generation
- Creation of a precipitation forecasting dataset
- Model Benchmarking project (Py4cast) refactoring using Lightning

ARTELIA | Design office
June 2023 – July 2023 | Tours
- HEC-RAS modeling of the hydrographic network of Touraine
- QGIS modeling of catchment areas
- Design of stormwater retention basins
- Construction site supervision
- Smoke tests

PROJECTS

STUDENT CONSULTING PROJECT
September 2025 – March 2026 | Montauban
- Assessment and coordination of agricultural water storage systems
- Ecological relevance: environmental impacts and sustainability benefits
- Stakeholder engagement: consultation and negotiation with public and local partners

STUDENT RESEARCH PROJECT
January 2024 – May 2024 | Toulouse
- Machine learning-based hydrological modeling of watersheds
- Data analysis (+20 parameters, +3000 watersheds)