Benoît MÜLLER

Applied Mathematics Engineer

Seeking opportunities
to apply my mathematical and computational skills
such as numerical analysis, across diverse industries.

PROFIL

Nationalities: Swiss & Italian
Born in: 1998 (26 yo)
Living in: Valais Switzerland

COORDINATES

✉ BenoitMuller82@gmail.com

🏠 Rue de la Bârre 32
3971 Chermignon-d'en-bas
Suisse

📞 +41 78 625 05 01

in @benoitmueller

🔗 benoit-muller.github.io/
→ academic projects

INTERESTS

The **scientific culture**, the **sharing** of knowledge, the art of **problem-solving.**

*"Everything should be made as **simple** as **possible**, but not simpler."*

Sports of any kind. 15 years of **judo**: multiple times **Valais Champion**, bronze medalist at the **Swiss Kata Championships**. **Hiking** and **skiing** in the Valais Alps.

EDUCATION

EPFL · Lausanne CH
- Master in **Applied Mathematics** (2021-2024) · Numerical analysis track.
- Bachelor in **Mathematics** (2018-2021).

LCP · Sion CH : Maturité Gymnasiale (2013-2018) · Strong mathematics.

EXPERIENCE

Intern - The Countdown company -2024 (5 months)
R&D Group: Adapted an open-source topological optimization code in Code_Aster, and presented specialized 3D printing path planning strategies.

Associative:

Associative member - EPFL - 2019 to 2023
- **EscapEPFL**: Communication manager.
- **MA Travel**: Organization and funding of the 2022 trip of the math section.
- **Coaching MA**: Coach of a first year students group, organization of events.

Sportive coach - Judo Team Sion - 2012 to 2018
Direction or assistance of the training for 5-18 years old fighters, management during competitions, referee intern.

SKILLS

Mathematics : Strong general background, with a specialization in continuous problems.

Numerical analysis :
- **Continuous Nonlinear Optimization**: constrained & unconstrained, on vector spaces & smooth manifolds, specialized methods for ML, optimal transport.
- **Computational Linear Algebra**: eigenvalues problems, linear systems, low-rank approximation techniques.
- **Differential Equations**: partial & ordinary, finite differences & elements, method of characteristics.

Statistics & ML : Probability, parameter inference, stochastic simulation, regression, dimension reduction, machine learning, deep learning.

Programming : Algorithmics, object-oriented & numerical programming.

Software & languages : Python (NumPy, SciPy), MATLAB, GitHub, LaTeX, MS-Office. Basics of C++, PyTorch, Scikit-Learn, HyperMesh, OptiStruct, Salome_Meca, Code_Aster.

LANGUAGES

- **French**   : C2, mother thongue
- **Anglais**   : C1, professional working proficiency
- **Italian**   : B1, limited working proficiency
- **German**   : B1, limited working proficiency