

# Eric Boittier, Ph.D.

## Contact

Location Arlesheim, BL 4144

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Languages English (native), German (B2)

## Scientific Software Architect – Deep Learning Applications

### Professional Experience

- 2026 • **Researcher** @Uni. Basel – Basel, CH
  - Deep learning on graph-structured data, chemistry
    - Designed, trained, and validated deep learning models
    - 1st place in HYDRA Spectroscopy Prediction Challenge
- 2020 •
  - Peer reviewer, Journal of Chemical Physics
- 2020 • **Research Assistant** @TRI – Brisbane, AU
  - Small-molecule & biomolecular modelling, Schrödinger software suite, OpenMM
    - Designed, supervised, and authored research on structure- and ligand-based design
    - Collaborated with multidisciplinary experts, building end-to-end data science solutions in Python and R
- 2019 •

### Skills & Competencies

- Programming Python, Julia, R, Fortran, C++, OpenMPI, CUDA
- Machine Learning JAX, TensorFlow, PyTorch, scikit-learn, NumPy
- DevOps Git, CI/CD, Docker
- Data Science SQL, Polars, Pandas

### Education

- 2025 • **Doctor of Philosophy, Chemistry** @Uni. Basel – Basel, CH
  - Molecular Deep Learning for Quantitative Simulations and Electrostatic Models
- 2020 • **Bachelor of Advanced Science, Chemistry** @Uni. Queensland – Brisbane, AU
  - Development of Computational Tools for the Rational Design of Glycosaminoglycan Mimetics
- 2015 •

- 2024 **Bridging Machine Learning Force Fields with Anisotropic Electrostatic Models**  
Swiss Chemical Society Machine Learning Group  
Lausanne, CH
- 2025 **Mixing Machine Learned and Empirical Energy Functions**  
apoCHARMM Meeting NIH  
Boston, US (Online)

### Open Source

Community-driven open-source contributions available on GitHub (@EricBoittier)

- **Cheminformatics software** (RDKit) bug fixes for C++ and python bindings, attended User Group Meeting (Zurich, 2024)
- **Computer vision tool** (OpenCV) for item tracking and **inventory management** (SQL) for an online marketplace