Diego Renner

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DiegoRenner

</> C++, Python, Matlab

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Experience

- **ETH Zürich** — Zurich, Switzerland
  Research Assistant — *September 2020 - Now*
  - Hired for continued development of BEM code that was implemented in the Masters Thesis.

  Technologies: C++, CMake, Github
  Theory: BEM, Resonances in Transmission Scattering Problems

- **ETH Zürich** — Zurich, Switzerland
  Teaching Assistant — *September 2020 - Now*
  - Teaching Assistant for Lecture "Computational Methods for Engineering Applications".

  Technologies: C++, LaTeX
  Theory: ODEs, PDEs and numerical algorithms to solve them

- **CSCS Swiss National Supercomputing Center** — Lugano, Switzerland
  Internship — *May 2018 - August 2018*
  - Writing regression checks for Piz Daint, Cray XC40/XC50 production system.

  Technologies: C, MPI, MySQL, Kibana, Grafana

- **Coople** — Basel/Zurich, Switzerland
  Logistics & Service — *2013 - 2020*
  - 50+ employments at events and meetings.
  - Favoured by 8 employers on the jobs distribution platform Coople due to reliability and efficiency.

- **Eugen Leu & Partner AG, Photography Studio** — Riehen, Switzerland
  Internship — *September 2011 - October 2011*
  - Preparing photosets and learning professional workflows.

Education

- **ETH Zürich** — Zurich, Switzerland
  M.Sc. Computational Science and Engineering, Specialization Physics — *2018-2020*
  - Degree finished, staying enrolled to take courses from Maths Masters degree.

- **Universität Basel** — Basel, Switzerland
  B.Sc. Computational Mathematics — *2014-2018*
  - Completed extracurricular courses on Computer Architecture, Operating Systems and Quantum Mechanics.

- **Gymnasium Bäumlihof** — Basel, Switzerland
  Matura, Specialization Biology & Chemistry — *2009-2014*

Certificate

- **CSCS Swiss National Supercomputing Center / USI Lugano** (remote) Lugano, Switzerland
  Summer School *2020*
  - GPU: architecture & programming (CUDA, OpenACC)
  - JupyterLab
  - Python: Numpy, SciPy, Dask, Numba
  - ML: Rapids
  - Deep Learning: TensorFlow

- **International Consulting Network (ICON)** Shanghai, (remote) Belo Horizonte
  Student Consulting Network *2017 - 2018*
  - Market Research & Trend Analysis
  - Consulting for CREP (Real Estate, China) & Lalubema (Private Security, Brazil)

Following sections items are clickable

Projects & Thesis

- Parallelizing the Barnes-Hut Algorithm with MPI: Parallelized implementation of N-Body solver in C++ using the MPI framework.
- AiiDA Lab implementation of IR spectrum calculations for carbon based nanomaterials: An AiiDa workflow implemented in the Jupyter Notebooks based AiiDa lab interface. (Semester Thesis)
- Near Resonances for Scattering Transmission Problems: A BEM based C++ solver for Scattering Transmission Problems, developed to investigate scatterer-dependent near resonances. (Masters Thesis)