CURRICULUM VITAE

Dr. Thomas Camminady

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EXPERIENCE

Algorithm Developer & Data Scientist — Wahoo Fitness LLC

since March 2021 — Remote from Germany; HQ in Atlanta, USA

- Development of algorithms for consumer sports devices and in-house R&D.
- Using time series analysis, sensor fusion, uncertainty quantification, and machine learning; both for rapid prototyping and production-ready code.
- Analysis and visualization of distributed (user) data using pandas, numpy, plotly, and SQL.
- C-code generation for low-level hardware sensors (GNSS, barometer, gyroscope) using Matlab.
- Agile work environment in a fully remote team (US and EU) using Jira and Confluence.

Scientific Staff — Steinbuch Centre for Computing & Center for CES

April 2015 — March 2021 — KIT Karlsruhe & RWTH Aachen, Germany

- Research in the field of kinetic theory, numerical mathematics, optimization, and machine learning.
- Application of machine learning tools to the optimization of numerical algorithms in CFD.
- Optimization of research software on KIT's HPC cluster via parameter studies using OpenMP.
- Teaching assistant and substitute lecturer for modules in the mathematics and CES programs.

Science Assistant — Center for Computational Engineering Science (CES)

Between January 2010 & March 2015 — RWTH Aachen, Germany

- Helping with teaching duties for various mathematics and computer science modules.
- Multiple CPU- and GPU-based research projects using C, Fortran, and CUDA.

Festival de Théorie — Summer School on Plasmas (Aix-Marseille University)

June 2017 — July 2017 — Aix-en-Provence, France

- Active participation in seminars and workshops in the field of plasmas, resulting in a journal publication.
- Implementing magnetic field derivatives into a Fortran DG-MHD research code.

Internship with Bachelor's Thesis — EADS Cassidian (Aerodynamics Division)

October 2012 — April 2013 — Manching, Germany

- Automation of UAV airfoil shape optimization using mesh adjoints.
- Numerical simulations with in-house tools and the adjoint code of the German Aerospace Center (DLR).

EDUCATION

Dr. rer. nat. in Applied Mathematics — Karlsruhe Institute of Technology

October 2017 — January 2021 — Grade: Magna cum laude

Thesis: Theory, models, and numerical methods for classical and non-classical transport.

Master of Science in CES — RWTH Aachen University

October 2013 — March 2015 — Grade: 1.2

Thesis: Theory and application of numerical methods for fractional diffusion equations.

Bachelor of Science in CES — RWTH Aachen University

October 2009 — September 2013 — Grade: 2.0

Thesis: Improvement of the aerodynamic shape optimization by adjoint methods in an MDO process.