



Maximilian Bernkopf

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🏡 maximilianbernkopf.github.io/math/

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🎓 Google Scholar

Summary

I am a project assistant and PhD candidate under the supervision of Jens Markus Melenk in the doctoral program Dissipation and Dispersion in Nonlinear PDEs funded by the FWF at TU Wien.

My research interest is concerned with numerical discretizations of time-harmonic wave propagation problems in a high frequency regime as well as least squares finite element methods with focus on minimal regularity assumptions on the data.

Besides that and due to my financial mathematics background I am interested in the connection to stochastics. Further interests of mine are the broad field of data science and machine learning. I gained my initial data science experience working at start-ups in Vienna.

Education

PhD Candidate in Computational Mathematics

TU WIEN

Vienna, Austria

09/2017-current

- Doctoral thesis: "Finite Element Analysis of the Heterogeneous Helmholtz Equation and Least Squares Methods"
- Supervisor: Prof. Jens Markus Melenk, PhD

Dipl.-Ing. (equivalent MSc) in Financial and Actuarial Mathematics

TU WIEN

Vienna, Austria

11/2015-06/2016

- Master thesis: "Analysis of the alpha-hypergeometric stochastic volatility model"
- Supervisor: Prof. Dr. Stefan Gerhold

BSc in Financial and Actuarial Mathematics

TU WIEN

Vienna, Austria

07/2011-11/2015

Matura (High school graduation equivalent)

SCHOTTENGYMNASIUM

Vienna, Austria

10/2002-06/2010

Work Experience

Data Scientist

INTRABASE

Vienna, Austria

09/2016-09/2017

- Focus on statistical learning and outlier detection.
- Development of statistical algorithms for unsupervised outlier detection.
- High dimensional anomaly detection of categorical and numerical data.

Data Scientist

MANTIGMA

Vienna, Austria

08/2016-09/2017

- Focus on time series analysis and supervised learning.
- Account balance forecasting for retail banking.
- Electricity demand forecasting utilizing classical mathematical time series models as well as novel deep learning techniques.
- Machine learning based credit scoring models.

Research Assistant

TU WIEN, RESEARCH UNIT OF FINANCIAL AND ACTUARIAL MATHEMATICS

Vienna, Austria

10/2015-06/2016

- Focus on credit risk models and their implementation.

Internship

FMA FINANZMARKTAUFSICHT ÖSTERREICH

Vienna, Austria

09/2013-12/2013

- Focus on Solvency II.

Community Service / Paramedic

ARBEITER-SAMARITER-BUND

Vienna, Austria

12/2010-08/2011

Hobbies and Random Bits

Sports	Calisthenics, Climbing, Bouldering, Gymnastics & Acrobatics
Non-athletic Hobbies	Dancing, Reading stoic philosophy, Non-modern Art, Listening to audiobooks at 2x the speed Google Local Guide Level 7, Weirdly enthusiastic about his Dyson
Less Usefull Skills	Juggling, Yoyo-tricks, Solving the Rubiks cube
Guilty Pleasures	Selfimporvement books, Reddit, Memes, Cheese
Random Facts	Can fit at least three Soletti sideways in his mouth, Dyed his hair blond to be Son Goku for Halloween,