



# Maximilian Bernkopf

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[🏠 maximilianbernkopf.github.io/math/](http://maximilianbernkopf.github.io/math/)

[MaximilianBernkopf](#)

[maximilianbernkopf](#)

[Google Scholar](#)

## Summary

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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

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### 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

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### 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

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