

# Martynas Subonis

*I enjoy creating impactful software. Interested in software engineering/data science opportunities in Zürich.*

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## WORK EXPERIENCE

2019 NOVEMBER – 2022 SEPTEMBER

### Full Stack Software Engineer

*True Wealth AG, Zürich*

Software engineer at a leading wealth management company in Switzerland. While working at True Wealth, I had responsibilities of:

- Leading the implementation of a trade-volume optimization pipeline for a new product stream. The optimization algorithm consisted of transforming product regulations into mathematical constraints and expressing the business problem as a convex optimization problem. The overall pipeline additionally included relational data modeling, data processing, and exposing new functionality via RESTful APIs.
- Co-leading new portfolio risk model. Solely responsible for mathematical models, contributed to new RESTful APIs, risk database model, customer risk data migration, and frontend integration/redesign. Estimated impact – improved portfolio risk estimation and granularization for 10000+ customers.
- Implementing client-data anonymization process. The pipeline would anonymize  $\approx 400$  GB of sensitive client data daily, providing risk-free production-like data for development/testing.
- Co-leading website redesign. The redesign focused on performance, accessibility, and SEO. As a result, each page had 100% SEO and  $\geq 93\%$  performance/accessibility scores on Lighthouse reports.
- Integration of E2E tests into the CI pipeline and build-system optimizations.

**Tech-stack** included: JAVA, TYPESCRIPT, PYTHON, REACT.JS, NEXT.JS, DOCKER, POSTGRES SQL, GCP, GIT, GRADLE, CYPRESS, WEBPACK.

2018 JULY – 2019 OCTOBER

### Full Stack Software Engineer

*atfinity GmbH, Zürich*

Software developer at a digital finance solutions company. Contributor to the main product - *regfinity* compliance platform. Main responsibilities included:

- Supporting the creation of software specifications and architectures.

- Developing RESTful backend APIs of the platform.
- Contributing to the development of a rule evaluation system.
- Creating interactive user interfaces.
- Defining quality assurance processes and conducting technical interviews.

**Tech-stack** included: PYTHON, JAVASCRIPT, REACT.JS, DJANGO, MYSQL, DOCKER, GIT, GRADLE, WEBPACK, REDUX.

2015 JULY – 2015 AUGUST

### Research Assistant

*Institute of Theoretical Physics and Astronomy – Department of Nuclei Theory, Vilnius University, Vilnius*

Part of the project “Subatomic particle physics at CERN CMS experiment”. Under the two-Higgs-doublet model (2HDM), created tools for data analysis and visualization with a C++ modular scientific software framework ROOT.

## RESEARCH EXPERIENCE

2016 – 2017

### Bayesian Optimization For Likelihood-Free Inference

*School of Informatics, The University of Edinburgh, Edinburgh*

Analyzed high-dimensional Bayesian optimization (BO) with Bayesian neural networks for likelihood-free inference (LFI). Utilizing PYTHON, created BO algorithm based on Bayesian neural networks for LFI, which outperformed standard Gaussian processes in both accuracy and computational cost aspects.

2015 – 2016

### Representation of Molecular Charge Density

*Theoretical Physics Department, Faculty of Physics, Vilnius University, Vilnius*

Investigated the representation of molecular charge density by point charges using numerical optimization algorithms. Created a continuous space optimization algorithm based on simulated annealing, for derivative-free optimization. Mainly MATLAB was used. Analyzed the molecular distance at which the point charge approximation becomes invalid.

## EDUCATION

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- 2016 – 2017 **MASTER OF SCIENCE  
Data Science**  
Distinction  
*The University of Edinburgh, UK*  
Focus on machine learning, data analysis  
and Bayesian optimization.
- 2012 – 2016 **BACHELOR OF SCIENCE  
Physics**  
Overall mark – 89%  
*Vilnius University, Lithuania*  
Focus on math and theoretical physics.
- 2015 – 2016 **EXCHANGE STUDIES  
Physics**  
*Lund University, Sweden*  
Focus on math, computational physics  
and machine learning.

## COMMUNICATION SKILLS

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- Lithuanian - Native
- English - C2
- German - A1
- Russian - A2

## ACADEMIC AWARDS

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- 2017 **MSc Class Award: Distinction**  
*Awarded for excellent academic  
performance during Master of Science  
studies.*
- 2016 **The University of Edinburgh UK/EU  
Master's Scholarship**  
*Awarded on the basis of academic merit.*

## TECHNICAL SKILLS

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### Programming Languages

Python, TypeScript, Java, SQL, MATLAB

### Web

React.js, Next.js, HTML, CSS, Django, Flask,  
Express.js, Webpack, Tailwind

### DevOps

git, Docker, K8s, CI/CD, GitHub Actions, gradle,  
bash

### Machine Learning

Scikit-learn, SciPy, Keras, TensorFlow, PyTorch

## ONLINE EDUCATION

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### TensorFlow in Practice

*TensorFlow Specialization by Andrew Ng  
(deeplearning.ai)*

Best practices of using TensorFlow for computer  
vision, natural language processing,  
sequence/time series problems.

### Deep Learning

*Deep Learning Specialization by Andrew Ng  
(deeplearning.ai)*

Foundations of Deep Learning. Convolutional  
networks, RNNs, LSTM, Adam, Dropout,  
BatchNorm, Xavier/He initialization etc.