

Martynas Subonis

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

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- 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.

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 ≈ 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, PostgreSQL, 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.

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

Master of Science in Data Science

The University of Edinburgh, UK 2016 – 2017

Distinction rank. Focus on machine learning, data analysis, statistics and Bayesian optimization.

Bachelor of Science in Physics

Vilnius University, Lithuania 2012 – 2016

89% overall grade. Focus on mathematics and theoretical physics.

Exchange Studies

Lund University, Sweden 2015 – 2016

Focus on mathematics, computational physics and machine learning.

Academic Awards

MSc Class Award: Distinction 2017

Awarded for excellent academic performance during Master of Science studies.

The University of Edinburgh UK/EU 2016

Master's Scholarship

Awarded on the basis of academic merit.

Technical Skills

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, PyTorch, Keras, TensorFlow

Online Education

TensorFlow in Practice

TensorFlow specialization by Andrew Ng

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

Deep Learning

Deep learning specialization by Andrew Ng

Foundations of deep learning. Convolutional networks, RNNs, LSTM, Adam, dropout, batch norm., Xavier/He initialization etc.

Communication skills

- Lithuanian - Native
- English - C2
- Russian - A1