Tautvydas Misiunas

Curriculum Vitæ

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Work Experience

Oct 2016 - Oct 2017

Senior data scientist
The Hut Group, Manchester, United Kingdom

Tech lead for data science team of around 10 people. Developed a forecasting solution that accurately predicts global and regional customer demand. Scaled to a high number of product lines (over 250k) by building a distributed application running on Apache Spark and Google Dataproc. Among multiple forecasting models developed LSTM predictor utilizing Keras/TensorFlow.

Automated promotion strategy for multiple webshops and locales. Solution reduced manual work required while achieving better conversion. Reduced distribution warehouse costs by optimising operations such as walking distance on the warehouse floor.

Spearheaded cloud adoption within the company.

Oct 2014 - Sep 2016

Software development engineer
Amazon, United Kingdom and Canada

I worked in a team that designed and developed a streaming payment disbursement platform designed to resiliently handle $100B+ payment throughput. I focused on fraud/duplicate detection prototype module that applies ML and fuzzy matching that outperform rule based approach.

Prior to this I worked in a team that is responsible for majority of personalized content on Amazon website and services, such as Fire TV, worldwide. Extended a human heuristics based recommendation ranking system with machine learned models allowing flexible optimization goals as well as better customer experience via accurate personalization. Quickly prototyped new models and performed analysis in Python while productionising best performing ideas in Java.

Prototyped a book language inference model that works purely from the title of the book. Prototyped a model to detect adult content used to prevent inappropriate content on main Amazon website. Developed highly parallelisable code base that runs on a fleet of thousands of hosts.

Education

2014	Master of Science
	Distinction
	Artificial Intelligence
	The University of Edinburgh
	Focus on ML and data analysis.
2012	Bachelor degree
	Overall mark - 84%
	Physics
	Vilnius University
	Focus on math and theoretical physics.

Projects

2015	Amazon internal mobile hackathon
	Amazon
2014	Recommendation system for MMO games
	MSc thesis
	The University of Edinburgh & deltaDNA
2013	Short term movements in stock prices
	Kaggle

Technical Skills

Machine learning	Scikit-learn, TensorFlow, Keras, Matlab, Weka, Hadoop, Spark
Software development	Java, Python, Scala, Linux, Jenkins, maven, gradle, sbt, c++, bash, Ruby, AWS, GCP

Nov 2012 – Aug 2013

Software developer
Ocado, London, United Kingdom

Java back-end developer on MHE control team, providing a reliable, real-time application responsible for control over sixty interconnected conveyors and cranes. Developed an optimization module which exploits idle machines to improve physical inventory distribution. The module required improved routing routine within a continuously changing warehouse.

Sep 2010 - June 2011

Research assistant
Center for Physical Sciences and Technology, Vilnius, Lithuania

Under the supervision of Prof. E. Tornau, developed computational model to emulate the behavior of triangular-shaped molecules. We have extended existing phase models, including Potts and Blume-Emery-Griffits, to support molecule's ability to settle ontothe lattice. The model successfully explained two structures which were observed in experiments. The model predicted a new structure and defined under what circumstances it forms.

July 2012

Android games
Mobile app

Co-created two Android free-to-play games. Both applications are highly successful with over a million downloads.

Publications

2012   Ordered assemblies of triangular-shaped molecules with strongly interacting vertices: phase diagrams for honeycomb and zigzag structures on triangular lattice
The journal of physical chemistry. B

Hobbies

- Kaggle - ML challenges
- Project Euler - Computational math problems
- Halite I & II - autonomous agents via ML
- Reinforcement learning
- Sailing, skiing, quadcopters, movies, video games