GUSTAV ŠÍR (ŠOUREK)

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EXPERIENCE

SWE Intern

Google

🛗 Jun 2017 - Oct 2017

♀ Zürich, Switzerland

- Development of novel deep learning models for Internet shopping
- Part of a wider cooperation project between Google DeepMind and Shopping
- Technologies: TensorFlow, Python, C++, MapReduce, Go

Research Intern

IBM Research

Marg 2014 - Nov 2014

♥ Haifa/Tel-Aviv, Israel

- PoC for extending the Watson Q&A system towards non-factoid questions
- "Great Minds" program in the Machine Learning Technologies laboratory
- Technologies: Java, Matlab, Python

Visiting Researcher

University of York

Jun 2016 - Jul 2016

York, England

- Logic-based neural learning directed towards NLP & KBC applications
- Technologies: Java, Python

Researcher

Czech Technical University

Sep 2013 - Present

Prague, Czech Rep.

- Developing novel machine learning algorithms for relational data domains
- e.g., network security, chemistry, biology, NLP and sports analytics
- Member of the Intelligent Data Analysis research group

Junior Analyst and Consultant

IBM

- Prague, Czech Rep.
- Creating prototypes of software solutions (with NLP)
- Member of the Smarter Content Analytics (iLab) group
- Technologies: Java, parts of IBM (Watson) products portfolio

MIS and Reporting analyst

Citibank Europe plc

₩ Jun 2011 - Jul 2012

Prague, Czech Rep.

- Reporting processes automation & data analysis
- For the teams of MIS/Collections (Business intelligence)
- Technologies: VBA, MSSQL, SSIS, SAP BO

Junior technical analyst

DHL IT Services

m Jun 2009 - Jul 2010

- Prague, Czech Rep.
- Support of global processes/applications migration & virtualization
- Member of the Citrix technology and Build & Migration teams
- Technologies: .NET, VMware, Citrix



EDUCATION

Ph.D. in Artificial Intelligence **Czech Technical University**

2013 - Present

Prague, Czech Rep.

- focus: Deep and Statistical Relational Machine learning from structured data.
- thesis: Deep Learning with Relational Logic Representations

M.Sc. in Artificial Intelligence **Czech Technical University**

2010 - 2013

Prague, Czech Rep.

- focus: Machine learning, Optimization, Data analysis, Soft computing
- thesis: Twitter's local trends spread analysis

B.Sc. in Intelligent Systems **Czech Technical University**

2007 - 2010

Prague, Czech Rep.

- focus: foundations of Computer science and Software engineering
- thesis: Visual design of evolutionary algorithms

ABROAD

M.Sc. Exchange Student

National Taiwanese Uni. of Science & Tech.

Fall 2012

♥ Taipei , Taiwan

• focus: Computer Science & Machine Learning

B.Sc. Exchange Student **Nanyang Technological University**

Fall 2010

♀ Singapore

• focus: Adv. Algorithms & Neural networks

TRAINING

Telecom ParisTech

"ATHENS" programme

Paris, France

- intensive specialization exchange program
- focus: Emergence in complex systems

IBM "Smart University" **IBM CZ**

Prague, Czech Rep.

- within IBM content analytics technologies
- focus: "Smarter content specialist" (NLP)

PROJECTS

End-to-end learning of optimal portfolios

⇒ granted by Czech Science Foundation

🛗 Jan 2020 - Present

♀ Czech Rep.

Researcher - Focus on principled combining of machine learning and subsequent (portfolio) optimization problems.

Deep Relational Learning

printle by Czech Science Foundation

m Jan 2017 - Dec 2020

Researcher - Developing novel algorithms for transferring neural network methods into relational learning setting.

Machine learning for network security

Funded by Cisco R&D

Prague

Researcher - Developing machine learning methods and sound algorithms to detect malicious events from NetFlow traffic.

Machine learning methods for bio-informatics

granted by Czech Technical University

🛗 Jan 2017 - Present

Prague

Coordinator (PI) - Developing various novel machine learning methods for data analysis in bio-informatics (and beyond).

Lifted Relational Neural Networks

A custom framework for deep *relational* learning, written completely from scratch. **github.com/GustikS/NeuraLogic**



COMMUNITY

Faculty Advisor

Upsilon Pi Epsilon

🛗 Jan 2017 - Present

♀ upe.cvut.cz

Coordinating Czech UPE Alpha Chapter activities, securing funding.

Tutor

Czech Technical University

Jan 2013 - Present

Prague

Machine Learning and Data Analysis, Functional and Logic Programming, Database Systems + Introduction to NLP from MatFyz.

Supervisor/Opponent

Czech Technical University

🛗 Jan 2015 - present

Prague

Supervised and reviewed more than 30 bachelor and diploma theses.

Reviewer

Journals and Conferences

♀ International

Served as a (sub-)reviewer for journals and conferences, including TNNLS, AIJ, MLJ, CI, and IJCAI, ILP, and others.

A LANGUAGES

Czech English German

Chinese Russian Spanish



TECHNICAL SKILLS

Machine Learning Data Analysis Algorithms Optimization NLP

NLP Databases

Datalog Java

Matlab

Python



AWARDS

Best paper @ ILP 2017

International Conference on Inductive Logic Programming

Graduation with honors summa cum laude both B.Sc. & M.Sc.

STRENGTHS

Artificial Intelligence | Machine Learning

Data Mining
Programming

Data Analysis

Databases

Analytical Thinking

Planning

Persistence

Speaking

Writing

☐ FEATURED

interview for magazine "Dotyk"

interview for Open Informatics

PUBLICATIONS

Over 20 publications with 150+ citations in international journals and conferences, including a US patent (status as of 2020). Please see my **G** scholar profile