

JUDIT ÁCS

SZTAKI Institute for Computer Science and Control

[Google Scholar](#)

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| github.com/juditacs

EDUCATION

University of Washington

Fulbright Visiting Student Researcher

Sept 2018 - Aug 2019

Budapest University of Technology and Economic

PhD in Computer Science

2014 – Present

MSc in Electrical Engineering

2013

BSc in Electrical Engineering

2011

SCHOLARSHIPS

Fulbright Scholarship

Sept 2018 – Jan 2019

Rosztoczy Scholarship

Febr 2019 – Aug 2019

Young Researcher Scholarship - Hungarian Academy of Sciences

2013 – 2014

Hungarian Federal PhD scholarship

2014 – 2017

Machine Learning Camp Jeju, South Korea

July 2017

SKILLS

Machine learning

PyTorch, Tensorflow, Keras, scikit-learn

Programming languages

Python, C++, C

Spoken languages

Hungarian (native), English (fluent), French, Japanese (intermediate)

EXPERIENCE

Google

Research intern

June 2020 – Aug 2020

Berlin, Germany (remote)

- Worked on interpretable deep learning models for sequence classification.

Eötvös Lóránd University

Machine learning tech lead

Nov 2019 – Present

Budapest, Hungary

- I advise machine learning projects related to applied mathematics.

Hungarian Academy of Sciences

Junior research fellow

April 2012 – Present

Budapest, Hungary

- Graduate research on unsupervised learning of morphology, diacritic restoration, language identification, and automated dictionary building.
- Automated dictionary building using several resources, such as Wiktionary, Wikipedia and parallel and comparable corpora. I created a framework for harvesting translations from over 40 editions of Wiktionary (i.e. en.wiktionary, hu.wiktionary etc.).

Budapest University of Technology and Economics

Assistant lecturer (previously student lecturer)

Sept 2014 – Present

Budapest, Hungary

- I'm the main lecturer of a [Python and NLP course](#), 3 semesters
- Taught classroom and lab sessions for the class Introduction to Programming (C and C++), 7 semesters
- Designed and taught a 3-hour lab on data analysis with pandas for the class Business Intelligence Laboratory, Data Analysis with Pandas, 3 semesters

- Mentored student research projects on machine learning and NLP.

Cliqz GmBH

Researcher

2013 – 2015

Budapest, Hungary

- Developed a query normalization module for search engines. As a part of this project, I built an evaluation framework using MapReduce to compare query normalization methods.

Ericsson

Software Engineer

2011 – 2012

Budapest, Hungary

Morgan Stanley

Software developer Intern

2010 summer

Budapest, Hungary

SHARED TASKS AND COMPETITIONS

CoNLL—SIGMORPHON 2018 Shared Task: Universal Morphological Reinflection

Task 1: Type-level inflection (3rd place out of 29 runs)

Task 2: Inflection in context (2nd place out of 6 teams)

Semeval 2015

Task 1: Paraphrase and Semantic Similarity in Twitter (10th place out of 30 runs)

Task 2: Semantic Textual Similarity (11th place out of 78 runs)

DSL 2015

Discriminating between Similar Languages (5th place out of 8)

PUBLICATIONS

The Role of Interpretable Patterns in Deep Learning for Morphology

J. Ács and A. Kornai, *XVI. Magyar SzámítógépesNyelvészeti Konferencia, 2020* (best paper)

Digital vitality of Uralic languages

J. Ács, K. Pajkossy, A. Kornai, *Acta Linguistica Academica pp. 327-345. (2017)*

The BME-HAS system for universal morphological reinflection

J. Ács, *CoNLL–SIGMORPHON 2018 shared task on Universal morphological reinflection, CoNLL 2018*

Digital vitality of Uralic languages

J. Ács, K. Pajkossy, A. Kornai, *Acta Linguistica Academica pp. 327-345. (2017)*

Evaluating embeddings on dictionary-based similarity

J. Ács and A. Kornai, *Workshop on Evaluating Vector-Space Representations for NLP, ACL 2016*

Hunaccent: Small Footprint Diacritic Restoration for Social Media

J. Ács and J. Halmi, *LREC 2016*

A two-level classifier for discriminating similar languages

J. Ács, L. Grad-Gyenge, T. Oliveira, *Workshop on Language Technology for Closely Related Languages: Varieties and Dialects, LT4VarDial 2015*

Competence in lexical semantics

A. Kornai, J. Ács, M. Makrai, D. Nemeskey, K. Pajkossy, G. Recski, **SEM 2015*

MathLingBudapest: Concept Networks for Semantic Similarity

G. Recski and J. Ács, *SemEval 2015*

Synonym acquisition from translation graph

J. Ács, *XI. Magyar Számítógépes Nyelvészeti Konferencia (MSZNY 2015)*

Pivot-based multilingual dictionary building using Wiktionary

J. Ács, *LREC 2014*

Building basic vocabulary across 40 languages

J. Ács, K. Pajkossy, A. Kornai, *Workshop on Building and Using Comparable Corpora, ACL 2013*

EXTRACURRICULAR ACTIVITIES

College Computer Science Group

2010 – 2012

Group leader

Budapest, Hungary

- In charge of the dormitory's Internet connection (1000+ endpoints) and dozens of server services (mail, web hosting, shell server, version control, IRC etc.)
- Oversaw developer teams in web development, mobile development, and computer security.

Word counting challenge

2010

Organizer

Budapest, Hungary

- Organized a challenge where participants had to compute word frequencies on large datasets.
- Built [framework for compiling and comparing solutions](#) in 25 programming languages.