OKSANA DEREZA

Machine Learning & NLP Engineer

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Ireland

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OBJECTIVE

I am a PhD researcher at the Insight Centre for Data Analytics, the University of Galway with 6+ years experience in Natural Language Processing specialising in representation learning & language modelling in low-resource scenarios. With my strong background in building end-to-end machine learning systems & cross-functional collaboration and my drive to research & innovation, I'm keen on working on real-world applications of the latest NLP models & techniques. I am looking for a Critical Skills Employment Permit (CSEP) in Ireland.

TECHNICAL SKILLS & LANGUAGES

Python R LaTeX Unix	Natural Language Processing (NLP)	Machine Learning (ML) Deep Learning
Large Language Models (LLMs)	Transformers Transfer Learning	Artificial Intelligence (AI) Data Science
Data Mining Digital Humanities (DH) Russian (native) English (C2) Irish French Danish		

EDUCATION

PhD in Computer Science

Insight Centre of Data Analytics, University of Galway

- PhD thesis: 'Diachronic word embeddings for historical languages'
- As a part of the CARDAMOM project team, worked on developing NLP technologies for minority and historical languages (data mining, tokenisation, POS-tagging, word embeddings, language modelling)
- Published 2 research papers at A-level conferences as the first author & co-authored 2 papers
- Delivered 10+ public talks on my work to different audiences (NLP researchers, computer scientists, historical linguists, general public)
- Demonstrated labs for masters' courses 'Introduction to NLP' & 'Advanced NLP', created lab worksheets & assignments and graded assignments of 70+ students

Master in *Computational Linguistics and Language Theory*, with distinction National Research University 'Higher School of Economics'

₩ Sep 2015 - Jun 2017

Degree of Specialist in Philology. Teacher of the Irish Language and Foreign Literature, with distinction Lomonosov Moscow State University

M Sep 2010 - Jun 2015

EXPERIENCE

Research Assistant

University of Galway / New York University

🛗 April 2023 - Sep 2023

- Performed 3+ NLProc tasks for An Gaodhal, a project on digitising a 19^{th} century bilingual Irish-English newspaper
 - OCR post-correction
 - Keyword extraction
 - Named entity recognition (NER)

Research Assistant

University College Dublin

- Researched DH methods and software for Medieval law studies
- Prototyped a linked data model for Medieval Irish legal tracts
- Facilitated writing a grant proposal for FLEXI project (received IRC and ERC awards)

Lecturer

National Research University 'Higher School of Economics'

- Authored and taught 3 undergraduate courses for students in humanities, administered exams and assessed students' performance
 - Python for Natural Language Processing
 - An Introduction to Python
 - Digital Literacy
- Improved course materials and lectured 2 graduate courses for students with a major in NLP, graded assignments
 - Machine Learning for Natural Language Processing
 - Functional and Cognitive Models in Linguistics
- Developed syllabi for the 'Data Culture' project
- Co-authored and taught the NLP block of a further education course 'Practical Data Science'; supervised 3 final research projects of students
- Organised the 'Digital Spring' school in Digital Humanities
- Implemented and conducted the Network Analysis track at the 'Digital Spring' school
- Managed the III Moscow-Tartu School in Digital Humanities
- Published 3 research papers
- Delivered 5 conference talks and 2 guest lectures

Data Analyst & NLP Engineer

Kaspersky Lab

Feb 2015 - Jul 2018

- Evaluated and corrected automatic webpage clasification results
- Performed 5+ NLP tasks: sentiment analysis, feedback classification, web query classification, content filtering, keyword extraction

AWARDS

GOI-IES Award

Higher Education Authority Ireland

2019

High-potential Employee Award

National Research University 'Higher School of Economics'

2018, 2019

Oxford Russia Fund Postgraduate Award

Oxford Russia Fund

2018

INTERESTS

Languages Photography Hiking Travel