

# Branislava Šandrih Todorović

**Doctor of Computer Science** 

### Profile

I have been actively engaged as a researcher since 2015. My main scope of interest is the development of language datasets, tools and models using machine learning techniques.

### Education

### PhD of Computer Science, Faculty of Mathematics, BU

October 2015 — July 2020

- Defended thesis titled Impact of Text Classification on Natural Language Processing Applications summa cum laude (10/10)
- In 2021 received the Annual Award of the Mathematical Institute of the Serbian Academy of Sciences and Arts in the field of computing for PhD students

# MSc of Mathematics, Faculty of Mathematics, BU

October 2014 — October 2015

 Defended thesis titled Refaktorisanje koda prema obrascima dizajna [Code refactorization towards design patterns] magna cum laude (9.81/10)

### BSc of Mathematics, Faculty of Mathematics, BU

October 2010 — June 2014

• Graduated magna cum laude (9.48/10)

### **Electrotehnician of Computing, Electrotehnics School**

September 2006 — June 2010

# Software Development

### **Developing NLP resources and tools**

2017 — Present

- Deployed previously trained CNN NER model as a web service on the ELG platform as a docker image on GitLab
- Developed BiLTe online tool for the extraction of bilingual terminology lists using lexical resources (Python, flask, spaCy, NLTK, scikit-learn, fasttext, Unitex, Moses)
- Developed NER&Beyond online tools for NER-related tasks (Python, flask, spaCy, StanfordNER)
- Trained NER and several Text Classification models (Python, keras, scikit-learn, tensorflow, matplotlb, numpy, pandas) published in research papers
- Created web services for feature extraction GDEX, SMStylo
- Set-up different open-source platforms on University servers (NodeJS, MongoDB)

#### **Details**

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Date of birth 19.08.1991.

#### Links

GitHub LinkedIn

#### Skills

**Machine Learning** 

**Deep Learning** 

**Data Processing** 

Data Analysis & Modeling

Natural Language Processing

**Programming** 

Mathematics / Statistics

Communication Skills

Fast Learner

Creativity & Problem Solving

#### **Hobbies**

Watching movies in Spanish, listening quality music & self-development

### Languages

Serbian

English

Spanish

German

#### Freelancer

2009 — Present

 Honorary coding projects, either via hiring portals (such as Rent-A-Coder/Upwork) either on recommendation

### Employment History

## Assistant professor at Belgrade University, Faculty of Philology

December 2016 — Present

- Teaching LaTeX, data formats, structures and algorithms, programming in Python and information retrieval to undergraduate students
- Teaching corpora compilation, text processing, semantic web, web crawling and scraping to master students
- Teaching data visualization, feature engineering, machine learning models with application to advanced NLP topics (such as named entity recognition, text classification, sentiment analysis) to PhD students
- Examining and supervising students of all levels

### Junior lecturer at Belgrade University, Faculty of Mathematics

October 2015 — December 2016

- Teaching basic front-end technologies
- Teaching advanced programming in C language
- Teaching object oriented programming in Java
- Teaching data structures and algorithms

#### Researcher at Belgrade University

October 2015 — Present

- Compilation of various text resources (text corpora, datasets, bilingual terminology lists)
- Data annotation, visualization and analysis
- · Feature engineering and selection
- Development and maintenance of tools for natural language processing (NLP)
- Training and evaluation of machine learning models for different NLP applications (word embeddings, text classification, text generation, hate speech detection)
- Writing scientific papers and publishing them in international journals
- Giving presentations at international conferences and European universities (University of Wolverhampton, UK and University of Malaga, Spain)
- Editor in chief and editorial assistant in two scientific journals

# Internships

### Java developer at SAP SE, R&D department, Waldorf

July 2014 — October 2014

 Full-stack developer of the KapaflexCy web/mobile application for smart working shift assignment (Java, MySQL, SAP UI5)

# Summer Schools, Seminars and Courses

# Deep Learning Specialization, Coursera

February 2022 — April 2022

# Summer School on Deep Learning in NLP

2019

# European Summer School in Logic, Language and Information

2018

# **Lisbon Machine Learning School**

2018