

ZEYNEP AKKALYONCU YILMAZ

Master's student working on deep learning for natural language processing at the University of Waterloo



EDUCATION

- present
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2018
- **MMath in Computer Science**
University of Waterloo 📍 Waterloo, ON, Canada
GPA: 92.00 / 100.00
Courses: Data-Intensive Distributed Computing, Data Infrastructure, Theory of Deep Learning
- 2017
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2013
- **BS in Computer Engineering**
Middle East Technical University 📍 Ankara, Turkey
GPA: 3.37 / 4.00
Ranked in the top 10% of the graduating class



EXPERIENCES

- present
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2018
- **Graduate Research Assistant**
University of Waterloo 📍 Waterloo, ON, Canada
 - Working on neural text generation models with Prof. Jimmy Lin at the Data Systems Group
 - Currently focusing on improving the quality of question generation from free text and knowledge graphs
- present
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2018
- **Graduate Teaching Assistant**
University of Waterloo 📍 Waterloo, ON, Canada
 - Evaluated the exams and assignments of the course Principles of Data Management and Use taught by Prof. Tamer Ozsu
 - Managed the discussion forums and course content over the online learning platform UWaterloo LEARN
- 2017
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2016
- **Undergraduate Research Intern**
KOVAN Research Lab 📍 Ankara, Turkey
 - Built a deep reinforcement learning agent that manipulates stacked objects using TensorFlow
 - Wrote Python scripts to generate random scenes in Blender to train and test models
 - Conducted literature review regarding robotic action planning based on natural language commands
- 2017
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2015
- **Undergraduate Teaching Assistant**
Middle East Technical University 📍 Ankara, Turkey
 - Collaborated with the instructor in lab preparation and execution for the course Data Structures
 - Assisted 100+ students in their programming labs of the course Introduction to C Programming
- 2015
- **Software Engineering Intern**
ASELSAN Inc. 📍 Ankara, Turkey
 - Developed software prototype to track and plot movement of a mobile device in real time
 - Implemented C++ library that extracts and displays motion information from built-in sensors
 - Explored and benchmarked different signal processing techniques in terms of speed and robustness



SELECTED PROJECTS

- 2018
- **Study of Solr on Large-Scale Document Collections**
<https://github.com/ljj7975/solr-evaluation>
 - Evaluation of the effectiveness of Solr as a search tool for terms with different selectivity
 - Implemented multi-threaded and distributed variations of a sample data analytic workload in Scala with Solr and Spark
 - Compared the performance of querying with Solr and filtering over documents with Spark in a Kubernetes cluster
- 2018
- **Tardis NMT**
<https://github.com/achyudhk/Tardis>
 - Distributed ensemble of seq2seq models with different hyperparameters and data splits in Keras
 - Trained and tested the ensemble across a cluster with PySpark using Elephas
 - Assessed the ensemble's effectiveness for the neural machine translation task on WMT'14 datasets
- 2017
- **Smart Shopping List**
<http://senior.ceng.metu.edu.tr/2017/thechaincoders/>
 - Cross-platform mobile Xamarin shopping list application written in C#
 - Built a RESTful API with Django around a SQLite database running on an Azure Linux VM
 - Created a hybrid recommendation system in Python to make tailored product suggestions
 - Implemented a virtual shopping assistant using NLTK featuring speech detection and generation



ACTIVITIES

- **Mentor**
Technovation
 - Supervising a team of three local middle-school girls during their programming and entrepreneurship journey
 - Helping the development of a mobile application that connects music teachers and aspiring students
- **Professional Chess Player**
Turkish National Junior Chess Team
 - Represented Turkey at numerous national and international tournaments
 - Ranked 8th in Europe at The Hopes of the World 4th Open European Festival in Varna, Bulgaria
- **Violinist**
TED Symphony Orchestra
 - Participated in the establishment of Turkey's first and only amateur symphony orchestra (as of 2017)
 - Performed in the first violin section at various venues for 4 years

CONTACT INFO

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🌐 <http://zeynepakkalyoncu.me>
🐙 <https://github.com/zeynepakkalyoncu>
in <https://linkedin.com/in/zeynepakkalyoncu>

SKILLS

Python
C++
C
Scala
Java

PyTorch
TensorFlow
Keras
NumPy
Matplotlib
NLTK
MATLAB
pandas

SQL
Spark
Hadoop
Solr
Kubernetes
Docker

Git
Unix
Bash

LANGUAGES

English
Turkish
French
Russian
Finnish