

# ZEYNEP AKKALYONCU YILMAZ

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

## EDUCATION

present	●	<b>MMath in Computer Science</b> <b>University of Waterloo</b>	📍 Waterloo, ON, Canada
2018		GPA: 91.00 / 100.00 Courses: Data-Intensive Distributed Computing, Data Infrastructure	
2017	●	<b>BS in Computer Engineering</b> <b>Middle East Technical University</b>	📍 Ankara, Turkey
2013		GPA: 3.37 / 4.00 Ranked in the top 10% of the graduating class	

## EXPERIENCES

present	●	<b>Graduate Research Assistant</b> <b>University of Waterloo</b>	📍 Waterloo, ON, Canada
2018		• 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	●	<b>Graduate Teaching Assistant</b> <b>University of Waterloo</b>	📍 Waterloo, ON, Canada
2018		• 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	●	<b>Undergraduate Research Intern</b> <b>KOVAN Research Lab</b>	📍 Ankara, Turkey
2016		• 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	●	<b>Undergraduate Teaching Assistant</b> <b>Middle East Technical University</b>	📍 Ankara, Turkey
2015		• 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	●	<b>Software Engineering Intern</b> <b>ASELSAN Inc.</b>	📍 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	●	<b>Study of Solr on Large-Scale Document Collections</b> <a href="https://github.com/ljj7975/solr-evaluation">https://github.com/ljj7975/solr-evaluation</a>
		• 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	●	<b>Tardis NMT</b> <a href="https://github.com/achyudhk/Tardis">https://github.com/achyudhk/Tardis</a>
		• 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	●	<b>Smart Shopping List</b> <a href="http://senior.ceng.metu.edu.tr/2017/thechaincoders/">http://senior.ceng.metu.edu.tr/2017/thechaincoders/</a>
		• 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

	●	<b>Mentor</b> <b>Technovation</b>	📍 Waterloo, ON, Canada
		• 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	
	●	<b>Professional Chess Player</b> <b>Turkish National Junior Chess Team</b>	📍 International
		• 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	
	●	<b>Violinist</b> <b>TED Symphony Orchestra</b>	📍 Ankara, Turkey
		• 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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## 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