

# ZEYNEP AKKALYONCU YILMAZ

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

## EDUCATION

- present  
2018
- **MMath in Computer Science**  
**University of Waterloo** 📍 Waterloo, ON, Canada  
GPA: 91.00 / 100.00  
Courses: Theory of Deep Learning, Data-Intensive Distributed Computing, Data Infrastructure
- 2017  
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  
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  
2018
- **Graduate Teaching Assistant**  
**University of Waterloo** 📍 Waterloo, ON, Canada
    - Evaluated the assignments of the course Principles of Data Management and Use
    - Managed the discussion forums and course content over the online learning platform UW LEARN
- 2017  
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  
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

## CONTACT INFO

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🌐 [zeynepakkalyoncu.me](http://zeynepakkalyoncu.me)  
🔗 [zeynepakkalyoncu](https://github.com/zeynepakkalyoncu)  
in [zeynepakkalyoncu](https://www.linkedin.com/in/zeynepakkalyoncu)

## SKILLS

|        |            |
|--------|------------|
| Python | SQL        |
| C++    | Spark      |
| C      | Hadoop     |
| Scala  | Kubernetes |
| Java   | Docker     |

|            |      |
|------------|------|
| PyTorch    | Git  |
| TensorFlow | Unix |
| Keras      | Bash |
| NumPy      |      |
| Matplotlib |      |
| NLTK       |      |
| MATLAB     |      |
| pandas     |      |

## LANGUAGES

English Turkish French  
Russian Finnish

## ACTIVITIES

UW Chamber Choir  
Technovation Mentor  
Turkish National Chess Team Player  
TED Symphony Orchestra Violinist