

Zeynep Akkalyoncu Yilmaz

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EDUCATION

University of Waterloo

- **MMath Thesis in Computer Science** Sep 2018 – Aug 2020 (expected)
 - Working on neural question generation under the supervision of Prof. Jimmy Lin

Middle East Technical University

- **BS in Computer Engineering** Sep 2013 – Jun 2017
 - GPA: 3.37 / 4.00 - ranked 10th in graduating class (top 10%)

EXPERIENCE

Middle East Technical University

- **Undergraduate Teaching Assistant** Nov 2015 – Jan 2017
 - Collaborated with 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*

KOVAN Research Lab

- **Undergraduate Research Intern** Jun 2016 – Sep 2016
 - Built a deep reinforcement learning agent that manipulates stacked objects in Python 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

ASELSAN Inc.

- **Software Engineering Intern** Jul 2015 – Sep 2015
 - 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

SKILLS

Programming Languages Python, C, C++, SQL, Bash, HTML, CSS, JavaScript
Tools & Frameworks Git, NLTK, NumPy, PyTorch, pandas, TensorFlow, Django
Languages English, Turkish, French, Finnish, Russian

PROJECTS

Smart Shopping List [Senior Design Project]

- 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

Pen Glove [Personal Project]

- Arduino Uno based data glove that allows the user to write by moving their hand in the air
- Created a Processing GUI to display motion information translated to 2D coordinates
- Wrote C++ code to recognize converted visual character by integrating Tesseract OCR

Action Detector [Machine Learning Term Project]

- Machine learning classifier in MATLAB that labels the action performed in given video segments
- Constructed statistical representations for videos using the features extracted with k-means clustering
- Classified masked actions with 98% accuracy by applying kNN on the normalized video representations

EXTRA CURRICULAR ACTIVITIES

TED Symphony Orchestra

- **Violinist**
 - 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

Turkish National Junior Chess Team

- **Chess Player**
 - 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