

İdil Sülo

Master's Student in Computer Science

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Education

Technical University of Munich (TUM)

Munich, GERMANY

M.Sc. in Informatics (Computer Science)

October, 2019 - Present

- A graduate student with an emphasis on deep learning and computer vision research.
- Working on a master's thesis at the intersection of multi-modal learning and compositional zero-shot learning.
- Taking part in a research project on self-supervised vehicle control at **TUM Computer Vision Group**.

Middle East Technical University (METU)

Ankara, TURKEY

B.Sc. in Computer Engineering

September, 2014 - June, 2019

- Studied one year at the English Language Preparatory School of METU.
- **Graduation Project:** DLEM - A project that enables deep learning networks available as an online service and greatly simplify the testing of the existing networks using ONNX format.
- **cGPA:** 3.17/4.0

Skills

Programming Languages Python, C/C++

Libraries, Frameworks and Tools PyTorch, NumPy, SciPy, Matplotlib, Pandas, OpenCV, CARLA, LaTeX, Git

Operating Systems Unix/Linux, Windows

Languages Turkish (Native), English (Advanced), German (Intermediate)

Research Experience

Computer Vision Group, Technical University of Munich

Munich, Germany

Student Researcher

April 1, 2021 - Present

- Worked on a self-supervised vehicle control project based on pose estimation (SLAM), view synthesis and Model Predictive Control (MPC) advised by Qadeer Khan and supervised by **Prof. Daniel Cremers** which led to a paper submission.
- Currently working on an extension of this vehicle control project to multiple sensor modalities.

KOVAN Robotics Research Lab, Middle East Technical University

Ankara, TURKEY

Undergraduate Student Researcher

February 1, 2019 - June 30, 2019

- Worked on development of an intelligent robot platform that functions as an apprentice for the human workers working in factory assembly lines co-supervised by **Prof. Sinan Kalkan** and **Prof. Erol Sahin**.
- Developed a module in order to predict the pose of human workers in real-time given the data from Kinect.
- Supported creation of a tool detection dataset named **METU ALET** and worked on a neural network model to demonstrate a possible use-case of the dataset for safety purposes.
- This work led to a publication accepted to **ECCV 2020 International Workshop on Assistive Computer Vision and Robotics**.

City University of New York

New York, NY, United States

Undergraduate Student Researcher (Remote)

October 1, 2018 - June 30, 2019

- Worked on developing a recurrent neural network model to help forming of smart buildings by predicting energy consumption based on data obtained from the City University of New York (CUNY) campuses under the supervision of **Prof. Theodore Brown**.
- This work is supported by **Scientific and Technological Research Council of Turkey (TÜBİTAK)** through the scope of scholarship programme **2209/A University Students Research Project Grant** which I am the recipient of.

ImageLab, Middle East Technical University

Ankara, TURKEY

Computer Vision Research Intern

June 25, 2018 - September 21, 2018

- Participated in a research of reducing the computational cost of GANs inspired by the MobileNet architecture with an application of the Depthwise Separable Convolution layers under the supervision of **Prof. Gokberk Cinbis**.

Industry Experience

Christie's

London, United Kingdom

Data Science Intern (Fixed-term)

May 3, 2022 - September 30, 2022

- Worked on a project on feature extraction from paintings by an automatic curation of tags as part of a taxonomy project.
- Helped ablation studies with OFA-Sys model on cross-modal tasks such as image captioning, visual question answering and visual grounding in the context of paintings, sculptures and luxury items.

Amazon Web Services (AWS)

Berlin, GERMANY

Software Development Engineer Intern, AWS AI - DevOps

August 15, 2021 - January 14, 2022

- Worked on a knowledge base system to manage, sort and categorize a growing amount of entities and their relationships, and to present across DevOps Guru multiple components in a centralized way.

UnetiQ

Munich, GERMANY

Data Scientist (Part-Time)

November 11, 2019 - July 1, 2020

- **Ground Control Project:** Developed neural network models based on sensor readings that aims to determine rail track quality for an environmental project.
- **Linde Project:** Analyzed the costs of Linde across various projects based on several key quantities.
- **Corona-AI Project:** Worked on prediction of the mortality status of patients based on the first 24 hours of ICU stay with the data obtained from the patients in University Hospital Regensburg, Germany.

Darkblue Telecommunication Systems

Ankara, TURKEY

Software Developer

June 11, 2019 - August 1, 2019

- Worked on a research and development project for the implementation of a real-time system using Support Vector Machine (SVM) model to classify face images of the people using C++ and Dlib.

Publications

- F. C. Kurnaz, B. Hocaoglu, K. M. Yilmaz, **I. Sulo**, and S. Kalkan, "**ALET (Automated Labeling of Equipment and Tools): A Dataset for Tool Detection and Human Worker Safety Detection**", in ECCV 2020 International Workshop on Assistive Computer Vision and Robotics, August 2020.
- **I. Sulo**, S. R. Keskin, G. Dogan, and T. Brown, "**Energy Efficient Smart Buildings: LSTM Neural Networks for Time Series Prediction**", in The International Conference on Deep Learning and Machine Learning in Emerging Applications (DEEP-ML), August 2019.

Honors and Awards

- **Grace Hopper Celebration 2022 (vGHC'22)** - IFF Gender & Diversity Grants, Technical University of Munich
- **HackZurich 2021** - Winner of IBM & the Literoom Workshop, "Digitally Enabling the Artist"
- **NeurIPS 2020, ICML 2020, ISMIR 2020** - Conference Grant
- **Scientific and Technological Research Council of Turkey (TÜBİTAK)** - 2209/A University Students Research Project Grant, 2019
- **Middle East Technical University** - Honor Roll (Spring 2015, Fall 2017, Spring 2018), High Honor Roll (Spring 2017, Fall 2018)

Extracurricular Activity

Women in CS @ TUM (Informatik-Forum Frauen, IFF)

Organizational Member / IFF Officer

April, 2022 - Present

Coding Woman [Website]

Blogger

January, 2018 - Present