

### CONTACT INFORMATION

Email idilsulo@gmail.com Web idilsulo.github.io

Google Scholar

#### **EDUCATION**

### Technical University of Munich (TUM)

Munich, Germany

M.Sc., Computer Science

2019 - 2023

Master's Thesis – Compositional Zero-shot Point Cloud Classification with Vision-Language Model Embeddings at TUM CAMP supervised by PD Dr. Federico Tombari.

### Middle East Technical University (METU)

Ankara, Turkey

B.Sc., Computer Engineering

2014 - 2019

Studied one year at the English Language Preparatory School of METU.

### **PUBLICATIONS**

- [1] **Idil Sulo**, Evin Pinar Ornek, Nassir Navab, and Federico Tombari, OpenPart: Compositional Open Vocabulary Point Cloud Understanding, *Under review*, 2023.
- [2] Qadeer Khan, **Idil Sulo**, Melis Ocal, and Daniel Cremers, Learning Vision Based Autonomous Lateral Vehicle Control Without Supervision, *Applied Intelligence, Springer*, 2023. [Paper].
- [3] Fatih Can Kurnaz, Burak Hocaoglu, Mert Kaan Yilmaz, **Idil Sulo**, and Sinan Kalkan, ALET (Automated Labeling of Equipment and Tools): A Dataset for Tool Detection and Human Worker Safety Detection", *European Conference on Computer Vision (ECCV) Workshops*, 2020. [Paper].
- [4] Idil Sulo, Seref Recep Keskin, Gulustan Dogan, and Theodore 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)*, 2019. [Paper].

### RESEARCH EXPERIENCE

# Computer Vision Group, Technical University of Munich Munich, Germany Student Researcher Apr 1, 2021 - Feb 28, 2023

- Performed self-supervised imitation learning for vehicle control based on pose estimation (SLAM),
  view synthesis and Model Predictive Control under the supervision of Prof. Daniel Cremers.
- Extended the framework to multiple sensor modalities to study robustness to sensor failures.
- Published at Applied Intelligence journal.

### KOVAN Robotics Research Lab, METU

Ankara, Turkey

Undergraduate Student Researcher

Feb 1, 2019 - Jun 30, 2019

- Worked on an intelligent robot platform that functions as an apprentice to human workers working in factory assembly lines co-supervised by Prof. Sinan Kalkan and Prof. Erol Sahin.
- Developed a module to predict the pose of human workers in real-time from Kinect data.
- Supported creation of a tool detection dataset and trained a neural network model to demonstrate a possible use-case of the dataset for safety purposes.
- Published at ECCV 2020 Workshops.

### City University of New York

New York, NY, United States (Remote)

Undergraduate Student Researcher

Oct 1, 2018 - Jun 30, 2019

– Enabled forming of smart buildings by predicting their energy consumption using LSTM.

### ImageLab, Middle East Technical University

Ankara, Turkey

Computer Vision Research Intern

Jun 25, 2018 - Sep 21, 2018

 Helped reducing the computational cost of GANs (e.g. WGAN) with Depthwise Separable Convolution layers of MobileNet architecture under the supervision of Prof. Gokberk Cinbis.

### INDUSTRY EXPERIENCE

## **Deltia**Computer Vision Engineer Intern

Berlin, Germany (Remote)

Feb 1, 2024 - Present

 Working on a smart ergonomics project based on human pose estimation to ensure workers health and safety in the long-term.

### Christie's

London, United Kingdom (Remote)

Data Science Intern

May 3, 2022 - Sep 30, 2022

- Performed ablation studies on cross-modal tasks such as image captioning, visual question answering and visual grounding for visual arts.
- Fine-tuned of vision-language models (e.g. BLIP and OFA-Sys).

### Amazon Web Services (AWS)

Berlin, Germany

Software Development Engineer Intern, AWS AI - DevOps

Aug 15, 2021 - Jan 14, 2022

- Established a knowledge base system to manage, sort and categorize a growing amount of entities and their relationships to present in a centralized way.
- Collaborated with research scientist to deploy NLP models.

Unetiq

Munich, Germany

Data Scientist (Part-time)

Nov 11, 2019 - Jul 1, 2020

- Supported customers with project-based AI solutions by developing neural networks for quality estimation and health status prediction.
- Analyzed customer data to provide project cost estimation.

### **Darkblue Telecommunication Systems**

Ankara, Turkey

Software Developer

Jun 11, 2019 - Aug 1, 2019

- Developed a real-time system based on SVMs to classify face images using C++ and Dlib.

## AWARDS & SERVICES

**CVPR** – Reviewer

CVPR 2023, NeurIPS 2020, ICML 2020, ISMIR 2020 - Conference Grant

Scientific and Technological Research Council of Turkey (TÜBİTAK) – 2209/A University Students Research Project Grant, 2019

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"

**Guinness World Record** – Participant of the "Largest Code Debugging / Bug Fixing Competition"

### SKILLS

Programming Languages – Python, C/C++

Libraries, Frameworks and Tools – Python Data Science/Deep Learning Stack (Py-Torch, NumPy, SciPy, scikit-learn, Matplotlib, Pandas, Jupyter); **2D/3D Computer Vision** (OpenCV, CARLA, Open3D, PyTorch3D); **Cloud Technologies** (AWS, Google Cloud, Azure); **Web Technologies** (HTML, CSS, Jekyll); CUDA, LATEX, Git

Operating Systems – Unix/Linux, Windows

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

### EXTRA-CURRICULAR ACTIVITIES

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

Munich, Germany Apr 2022 - Present

Events Team Lead

Ankara, Turkey

Organizer & Mentor

2018

Coding Woman

Django Girls

Blogger

Jan 2018 - Present