



Gonca Yilmaz

Computer Science Student (M. Sc.)

- ▶ 29.11.1999 in Istanbul
- ▶ Turkish

Contact

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Soft Skills

- ▶ Teamwork
- ▶ Adaptability
- ▶ Time Management
- ▶ Strong collaboration and communication skills
- ▶ Technical document writing

Technical Skills

- ▶ C++, Java, JavaScript, Python
- ▶ PyTorch, PySpark, OpenCV and data visualization libraries
- ▶ Deep Learning libraries like JAX, Tensorflow, Keras
- ▶ Data Structures and Algorithms
- ▶ Agile Methodologies
- ▶ Mixed Reality, Unity (with HoloLens)

Objective

Looking for a job position in the field of Artificial Intelligence starting from September 2024. Currently working on my Master's Thesis under the supervision of Prof. Dr. Marc Pollefeys at ETH Zurich. My experience in research and programming, in addition to my effective working skills and my commitment to learning, ensures that I will make a positive contribution.

Education

Computer Science (M.Sc.)

University of Zurich (UZH)

09/2021 - Present

Major in Artificial Intelligence, Minor in Data Science

Relevant courses: Deep Learning, Vision Algorithms for Mobile Robotics, Foundations of Data Science, Advanced Topics in Artificial Intelligence, Introduction to Interactive-Visual Data Analysis

Student Activities: Launch and IT Committee Member at ETH Entrepreneur Club. We organized Launch AI+X Summit in collaboration with ETH AI Center. Also made the website.

Publications

- "Weighted Maximum Likelihood for Controller Tuning", Gonca Yilmaz*, Angel Romero*, Shreedhar Govil*, Yunlong Song, Davide Scaramuzza, *ICRA 2023*
- "MOVSeg: Open Vocabulary Segmentation from Multi-Modal Inputs", Gonca Yilmaz, Songyou Peng, Hermann Blum, *MMFM Workshop, ICCV 2023*

Road Damage Detection (Research Project): Unsupervised Domain Adaptation concept for Road Damage Detection on 2D images from Japan, Czech and India datasets. *Supervisors:* Ismail Nejjar, Prof. Dr. Olga Fink (EPFL)

Policy Search for Controller Tuning (Research Project): Weighted Maximum Likelihood for fine-tuning MPCC controller, paper and video, published at *ICRA 2023*, *Supervisors:* Angel Romero, Yunlong Song, Prof. Dr. Davide Scaramuzza (UZH and ETH Zurich)

Open Vocabulary Image Segmentation for RGB-D (Research Project): Using CLIP and Mask Former for RGB-D open vocabulary image segmentation task, paper published at Multimodal Foundation Model Workshop, *ICCV 2023*, *Supervisors:* Songyou Peng, Dr. Hermann Blum, Prof. Dr. Marc Pollefeys (ETH Zurich)

Domain Adaptation for Open Vocabulary Image Segmentation (Master's Thesis): Findings are submitted to *ECCV 2024*. Extended abstract version is published at Multimodal Foundation Model Workshop, *CVPR 2024*. *Supervisors:* Dr. Hermann Blum, Dr. Francis Engelmann, Songyou Peng, Prof. Dr. Marc Pollefeys (ETH Zurich)

Computer Science (M.Sc.) - Special Student

ETH Zurich

09/2021 - Present

Relevant courses: Computer Vision, Mixed Reality, Probabilistic Artificial Intelligence, Computational Semantics for Natural Language Processing (NLP), Natural Language Processing for Law and Social Science, Introduction to Social Networks, Machine Perception

- ▶ Computer Vision concepts
- ▶ Transformers, Large Language Models
- ▶ Natural Language Processing
- ▶ Deep Learning

Languages

Turkish	Native
English	C1
German	B2
French	A2

Interests

- ▶ Piano
- ▶ Yoga
- ▶ Paragliding
- ▶ Cooking
- ▶ Travelling

Projects

- ▶ **GymFeat:** Fitness app, which gives real-time feedback to the user's movements during a workout using pose estimation
- ▶ **Floor Plan Generation from 3D Furniture:** HoloLens app for interior design, uses object tracking
- ▶ **DANCER for Multi-Source Document Summarization:** Adapting DANCER, a single-source document summarization model (transformer) for multi-source document summarization task
- ▶ **Word Sense Disambiguation for Racial Bias Analysis:** analyzes New York Times corpora for the presence of racial bias using Word Sense Disambiguation model (transformers)

Computer Science (B.Sc.)

Bilkent University

Comprehensive Scholarship Student
Graduated with Honors

Senior Project: „GymFeat: AI Fitness Trainer“. (here is the [link](#) to our website)

Computer Engineering (B.Sc.) - Erasmus+

TU Dortmund
Dortmund, Germany

Exchange Student at TU Dortmund for a semester

Work Experience

Incoming Applied Scientist Intern

Amazon
Berlin, Germany

Will be working with Amazon Fulfillment Technologies & Robotics team on developing novel robotics, computer vision, and machine learning solutions for warehouse automation.

3 x Software Engineer Intern

Google
Zürich, Switzerland

- *Google Search Quality (Summer 2023):* using Large Language Models to improve Google Search ranking quality, the model will be deployed to search to serve billions of customers
- *Google Commerce Search Quality (Summer 2022):* building tools for offline model analysis and computing further metrics to evaluate ranking models
- *Fitbit Mobile Device Infrastructure (Summer 2021):* building a file storage microservice, to enable researchers to reach the raw data logs that are uploaded from Fitbit devices, while conducting an experiment

Part-Time Computer Vision Engineer

Flappie
Zurich, Switzerland

Flappie provides a cat flap where the door only opens if the cat is not bringing prey. I wrote the computer vision infrastructure for the smart cat flap where we detect whether the cat is bringing prey through the cameras placed in the flap.

Software Development Engineer Intern

Amazon
Berlin, Germany

Amazon Music ML: analyzing features of the recommendation systems in detail

Part-Time Software Developer

AlgoritiX, Prof. Dr. Yavuz Oruç
Remote

CodeAPeel, programmed with Java, aims to house Intel, Sparc, and MIPS ISAs. I programmed the compiler so it could accept some instructions.

08/2017 - 06/2021

03/2020 - 08/2020

04/2024 - 09/2024

2021 - 2023

02/2023 - 05/2023

07/2020 - 10/2020

02/2020 - 08/2020

Software Engineer Intern

08/2019 - 09/2019

Gelisimpark Egitim
Ankara, Turkey

Helping them organize and retrieve data by using PostgreSQL.

Teaching Experience

Graduate Teaching Assistant

09/2022 - Present

ETH Zürich
Zürich, Switzerland

Environmental Systems Data Science (Fall 2023) by Prof. Dr. Loic Pellisier
Data Structures and Algorithms (Spring 2023) by Prof. Manuela Fischer and
Prof. Felix Friedrich Wicker
Environmental Systems Data Science (Fall 2022) by Prof. Dr. Loic Pellisier

Graduate Tutor

10/2021 - 01/2022

University of Zurich
Zürich, Switzerland

Foundations of Computing 2 (Fall 2021) taught by Prof. Dan Olteanu

Undergraduate Teaching Assistant

09/2019 - 01/2020

Bilkent University
Ankara, Turkey

Calculus 1 (Fall 2019) by Aydan Pamir
Introduction to Programming in Java (Spring 2019) by Aynur Dayanik