

# İDİL GÖRGÜLÜ

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[www.linkedin.com/in/idilgorgulu](https://www.linkedin.com/in/idilgorgulu) | <https://github.com/idil-gorgulu> | <https://kuuje.ku.edu.tr>  
**Programming Languages:** Java, Python, C/C++, VHDL, SQL, SCPI, Dart, MATLAB

## EDUCATION

**Koç University, İstanbul, Turkey**

*Bachelor of Computer Engineering (Double Major), GPA 3.74/4.0*

09/2022 - 01/2026

*Bachelor of Electrical and Electronics Engineering, GPA 3.74/4.0*

09/2021 - 06/2025

Pursues track programs in Cryptography, Security, Data Analytics and Artificial Intelligence.

**Awards:** Deans Honor Roll, Vehbi Koç Honor Award -given for semesters with GPA's > 3.75

**TED Ankara College Foundation Private High School, Ankara, Turkey**

09/2017 - 06/2021

Ranked **2<sup>nd</sup>** in terms of CGPA in the Class of 2021 from approximately 600 students.

Academic Science Program Graduate (CGPA: 97.93/100)

Received 100% merit scholarship based on top 1% ranking in National High School Entrance Exam.

## WORK EXPERIENCE

**Technical University of Munich, Chair of AI Processor Design, Researcher, Munich, Germany**

07/2025 – Present

- Explores integrating configurable approximate multipliers into **neural network accelerators** written in **C** to study their effect on performance and accuracy.
- Builds a generalizable software interface to automatically identify and replace suitable multiplications in **NN** layers with approximate variants based on model structure and position.

**Technical University of Munich, Chair of AI Processor Design, Researcher, Munich, Germany**

06/2024 – 09/2024

- Developed a **Python**-based measurement software to automate data acquisition from oscilloscopes, waveform generators, power supplies, and source measurement units using **SCPI** commands.
- Improved testing capabilities by integrating accurate control and monitoring mechanisms into the software, leading to more intelligent, efficient and precise measurement processes.
- Conducted multiple business trips to Fraunhofer EMFT to apply the software in a practical setting, utilizing their cryostat for testing custom circuit behavior under cryogenic conditions at temperatures down to 0.4K.
- Collaborated with senior researchers, physicists and engineers to refine testing methodologies and experiment throughput, under the supervision of Prof. Dr. Hussam Amrouch.

**Koç University, Undergraduate Researcher, İstanbul, Turkey**

06/2023 – 09/2024

- Participated in the development of a **VHDL** and **Verilog**-based RISC-V microprocessor architecture aimed for MNIST dataset classification through convolutional neural networks (**CNNs**).
- Worked under the supervision of Dr. Mehmet Cengiz Onbaşlı and collaborated with a team of 2 undergraduate students selected from a pool of approximately 150 candidates.
- Contributed to the team's success in earning a **finalist** position in the Microprocessor Design category at **TEKNOFEST 2024 Chip Design Competition**.

**Koç University, Undergraduate Teaching Assistant, İstanbul, Turkey**

02/2024 – 06/2024

- Contributed to the conduction and management of weekly lab sessions for 50 students for the course COMP201: Computer Systems and Programming, taught by Dr. Aykut Erdem.
- Held weekly office hours and provided practical assistance to students about the fundamentals of **C** and **Assembly**.

**Koç University IT Center, Software Developer Intern, İstanbul, Turkey**

04/2023 - 06/2023, 10/2023 – 02/2024

- Contributed to the front-end development of Koç University's new digital platform KUHUB using **Flutter**.
- Participated in daily meetings and collaborated with team members to work on the optimization of user experience.
- Worked on the architectural design and development of KUHUB's web application using the MVC framework.

**Koç University, Laboratory Assistant and Section Leader, İstanbul, Turkey**

10/2023 – 01/2024

- Conducted weekly lab sessions for 50 students and evaluated lab assignments for the course COMP132: Advanced Programming, taught by Prof. Dr. Öznur Özkasap.
- Delivered weekly office hours and provided hands-on guidance to students about **Java** and OOP.

**Savunma Teknolojileri ve Mühendislik A.Ş. (STM), Computer Vision Intern**, Ankara, Turkey 07/2023 - 08/2023

- Studied properties of popular aerial image datasets and common challenges that are encountered during detection and evaluation processes along with methods to overcome them.
- Documented my research in a formal report to be published by the company, which helped raise their dataset's mAP results acquired with **YOLOv8** increase by 5%.
- Participated in field work in collaboration with a team of 18 engineers and 8 interns to acquire data to be included in the company's aerial image dataset for object detection.
- Fine-tuned the augmentation parameters of a **YOLOv8** model to increase diversity of training data.

**Koç University, Teaching Assistant**, İstanbul, Turkey 02/2023 - 06/2023

- Conducted weekly office hours and bi-weekly problem-solving sessions for the course ENGR 200: Probability and Random Variables for Engineers, taught by Prof. Dr. Alper Demir, in collaboration with 2 undergraduate students.

**Koç University KUIS AI Lab, Research Assistant**, İstanbul, Turkey 12/2022 - 04/2023

- Contributed to the labeling of 10,000+ frames by annotating texts and faces that belong to the same character in comic book sequences for a facial recognition project.

## LEADERSHIP EXPERIENCE and EXTRACURRICULAR ACTIVITIES

**Koç University KU Orchestra, Vocalist and Guitarist**, İstanbul, Turkey 09/2022 – Present

**Koç University Undergraduate Journal of Engineering, Co-Founder and Editor**, İstanbul, Turkey 09/2023 - 09/2024

**Istanbul Jazz Festival Genç Caz+ Competition, Winner**, İstanbul, Turkey 05/2024

**Koç University IEEE Student Branch, Board Member**, İstanbul, Turkey 09/2022 – 06/2023

- Contributed to the organization of Engine Your Career'23, which focuses on creating opportunities for students to engage with industry leaders and experienced engineers.

**TED Ankara College Youth Symphony Orchestra, President and Saxophonist**, Ankara, Turkey 09/2014 – 06/2021

**51<sup>st</sup> TÜBİTAK High School Students Research Project Competition, Participant**, Ankara, Turkey 03/2020

- Awarded **1st place** in Technology and Design in the regional finals with a project named “Cybele” that aimed to optimize agricultural production by measuring factors that affect crop yield.

**TED Ankara College Politics and Diplomacy Club, Board Member**, Ankara, Turkey 10/2017 – 06/2020

- Attended 10+ international and national Model UN conferences as a delegate and a chairperson and received “Best Delegate” awards multiple times.
- Provided mentorship to new members of the club by giving presentations on public speaking and guidelines on resolution and position paper writing.

## SKILLS AND INTERESTS

*Programming Skills:* Java (Advanced), Python (Advanced), SQL(Advanced), C/ C++ (Advanced), SCPI (Advanced), Dart (Intermediate), MATLAB (Novice), VHDL (Novice), Verilog (Novice)

*Computer Skills:* LaTeX, Microsoft Office Suite; proficient in Windows, macOS, and Linux

*Language Skills:* Turkish (Native), English (C2), Spanish (A2-B1), German (A1)

*Interests:*

- Musical Performance: Guitar player for 10+ years with a London College of Music Examinations Grade 8 certificate on classical guitar playing, amateur singer, interested in jazz specifically.
- Windsurfing: Worked seasonally as a windsurfing instructor for three summers at Beta Bodrum Sailing Academy (2020-2022) and one summer at Otto Sailing Academy (2023), both located in Bodrum, Muğla, Turkey.
- Extreme sports: Skiing and sailing enthusiast.