

Rabia Göksel Demiray

Electronics and Communication
Engineering Student

Github and LinkedIn :

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My Linktree =>



About Me

I am an engineering student with an interest in digital design, software programming, computer architecture and programming embedded systems.

Currently, I am trying to improve my knowledge and experience in digital design with Verilog, FPGA and microprocessors and also C language.

Education

Istanbul Technical University

Electronics and Communication Engineering Student (Undergraduate)

3rd grade -- Expected graduate: 2025

42 Istanbul

C/C++ programming

Expected graduate: 2024 Summer

Experience

ITU GSTL | Digital Design

42 Istanbul | Main Course student (2023 July -)

ITU Autobee Team | Electronics Team member (2022 - 2023)

Projects

• Verilog and VHDL

I am studying with Verilog by myself about little projects.

Also I am going to work on projects at ITU GSTL in the coming months and we plan to attend Teknofest with a processor we will develop.

• my_first_processor

I have created a little processor which only have 4 instruction set with Verilog in ITU GSTL Gen1 education . Now I'm learning RISC-V architecture and trying to improve my_first_processor according to RISC-V.

• Minishell

We have created a copy of a bash shell and tried to code all the commands with all the details. The hard part was parsing and classifying the given string. The most important thing that I learned was child process creating and handling, also working for long a time as a team.

• Cub3D - Philo

First one is 3D game which I have coded by raycasting algorithm in C. I have learned how to use my engineering math skills in programming word. The second projects is a educational and developmental project about threads, timing and algorithm.

• TIKA - NJORD

I was a part of a autonomous vehicle team which called Autobee. I worked in the department of electronics for programming embedded software with Arduino and STM32. We joined to Teknofest at Turkey and NJORD at Norway with our autonomous vehicles. We won the first place at the NJORD

• So_Long - Push Swap - Libft - Get_Next_Line - ft_printf

I started coding with C in Ecole42 and these were my starter level projects and I have learned the basics of programming with these projects. In these projects I have created a 2D game, a copy of radix sorting algorithm, my first C library, a copy of a printf function and so on. These projects are the milestones of my algorithm skills.

• my_first_otonomous_car

The first project that I started coding in embedded programming and Python. I code it with Arduino and we won the competition which is done at our university.

Related Skills

- C/C++
- VHDL - Verilog
- Digital System Design
- Computer Organization and Digital Design
- Embedded Software - STM32 , Arduino
- Digital Signal Processing
- Python, TCL
- UART - I2C

Related Tools

Xilinx - Matlab - Simulink - VS Code - Shell - Github

Soft skills and hobbies

- English - B2+
- Problem solving, Team work and Communication
- Robotics and Electronics
- Reading
- Chess
- Volleyball

Relevant Coursework

- Digital System Design, Introduction to Logic Design and Lab, Microprocessor Systems, Feedback Control Systems, Digital Signal Processing, Introduction to Programming Language with C, Introduction to Programming Language with Python, Advanced Python Aplications, Numerical Analysis with Python, Linear Algebra and Aplications, Basics of Electrical Circuits