



# Yiğit Bektaş GÜRSOY

Electronics and Communication Engineering Student

✉ yigitbektagursoy@hotmail.com

☎ (+90) 538 478 18 29

📍 Istanbul, Turkey

in Yiğit Bektaş Gürsoy

🌐 grsyigit

## Education

**Bachelor of Science - Electronics and Communication Engineering,**

Istanbul Technical University

Overall GPA: 3.55/4.00

10/2018 – 06/2023 | Istanbul, Turkey

**Graduation Project:**

**Title:** IMPLEMENTING THE CABAC ENTROPY CODING BLOCK IN H.264/AVC

**Abstract:** Implementation of the CABAC entropy encoding type in the entropy encoding block in the H.264/AVC compression standard

### Courses

- Data Structures & Programming
- Digital Electronic Circuits
- Digital Signal Processing
- Digital System Design Application
- Introduction to Embedded Systems
- Introduction to Logic Design
- Logic Design Laboratory
- Microprocessor Systems
- Object Oriented Programming
- VLSI Circuit Design II

## Professional Experience

**Digital Design Engineer,** Yongatek

10/2022 – 06/2023 | Istanbul, Turkey

- I designed and implemented Context-Adaptive Binary Arithmetic Coding (CABAC) in H.264/AVC, as per the H.264 ITU-TE/ISO/IEC standard, as part of my graduation project. I initiated the project by designing and verifying the CABAC model in MATLAB.
- I started RTL design after writing and validating MATLAB codes. I designed the first block of CABAC entropy encoding, which is the binarization block by using VHDL. I then proceeded to test its validations on the testbench.
- I had successfully achieved around 80% of the project goals by the conclusion of the project. This included the design, verification, and partial RTL implementation, which significantly enhanced my ability to apply theoretical concepts in a practical setting.

**Intern,** Turk Havacilik ve Uzay Sanayii

04/2022 – 10/2022 | Istanbul, Turkey

- I was selected for a comprehensive bootcamp program focusing on C programming, thanks to my GPA of 3.56. The aim of the program was to deepen my understanding of various aspects such as linked lists, pointers, and particularly, data structures and algorithms.
- I actively engaged in rigorous exercises and problem-solving sessions during the program, combining my individual creativity with the collective learning of the group to navigate the program's challenges.
- I noticed a significant enhancement in my C programming skills and a deeper grasp of complex concepts by the conclusion of the program. This bootcamp experience fortified my capability to manage intricate coding scenarios, aiding in my growth as a proficient programmer.

**Scholarship Student,** Tubitak Bilgem

11/2021 – 04/2022 | Kocaeli, Turkey

- I was tasked with using Xilinx Vivado for digital circuit design, allowing me to enhance my FPGA and digital logic design skills as an intern at TUTEL (Integrated Circuit Education and Design Laboratory).
- I significantly developed my expertise in FPGA and digital logic design, resulting in valuable practical experience in circuit design and verification through my active engagement with Xilinx Vivado.

## Skills

### Programming

C, C++, Python, Verilog, Assembly

### Tools

LTSpice, Vivado, MS Office, MATLAB

## Languages

**English** (Advanced), **German** (Elementary), **Turkish** (Native)

## Interests

### Body Building/Calisthenics

I have been dealing with body building for about 3 years and calisthenics for close to 1 year as an individual, .

### Football/Futsal

I have played in various amateur teams and school teams since the age of 10, and participated in both football and futsal tournaments in the school teams I was selected for. I regularly play with my friends every week