

Zeynep Begüm Kara

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|------------------------|--|-----------------|
| ACADEMIC BACKGROUND | Bilkent University , Ankara, Turkey | 2020 - Jan 2025 |
| | <i>Bachelor of Science</i> , Computer Science with Full Scholarship Current CGPA: 3.43 / 4.0 | |
| | Ankara Atatürk Anatolian High School , Ankara, Turkey | 2015 - 2019 |
| | GPA: 96.85 / 100 Ranked 332 nd among 2 million students in University Placement Exam in 2020. | |
| EXPERIENCES | Software Intern, OBSS Technology: Java Ignite Program | Jul - Aug, 2022 |
| | ▷ Experience in the development of web applications ▷ Contributed to a library management system using SpringBoot, MySQL and React | |
| | Contracted Undergraduate Tutor, Bilkent University | Feb - Jun, 2022 |
| | ▷ Tutored <i>CS101: Algorithms and Programming I</i> course ▷ Conducted tutorial sessions for freshmen CS majors once a week ▷ Solved examples, and fixed bugs in their laboratory works | |
| | Nesin Mathematics Village , <i>Math & Art School for Undergraduates</i> | Summer, 2022 |
| | Nesin Mathematics Village , <i>Turkish Mathematical Society: Summer School for Undergraduate and Graduate Students</i> | Summer, 2021 |
| | Nesin Mathematics Village , <i>Analysis for High School Students</i> | Summer, 2019 |
| PROJECTS | RIGEL (<i>ongoing</i>) OOP, Project Management Design Patterns, UML ▷ Designed internship management system for Bilkent University ▷ Led a team of 5 people as a team leader ▷ Conducted requirement analysis, drew 7 state diagrams and 3 activity diagrams | |
| | RUSSELL Programming Languages, BNF, Lex, Yacc, C ▷ Designed a programming language that has only boolean type ▷ Specified the syntax rules with Backus-Naur Form ▷ Implemented lexical analyzer and parser | |
| | E-MINOR Java, Algorithms, Computer Music ▷ A hobby project that generates computer music from a text with respect to their syllables and characteristics of letters ▷ Analyzed differences between a literary text and random text in terms of their musicality | |

Single Cycle & Pipelined Microprocessor | System Verilog, FPGA, Vivado
 ▷ Designed a datapath with respect to von Neumann Architecture
 ▷ Implemented controller, data and instruction memory, registers, ALU, register file including their building blocks

Parking Lot System | C++, Data Structures
 ▷ Designed and implemented a system to manage parking lots for different sized vehicles with respect to OOP principles

ACTIVITIES & VOLUNTEERISM Member of Journal Archive Team, *Matematik Dünyası* 2021 - Present
Matematik Dünyası has been published by the prestigious mathematicians in Turkey since 1990
 ▷ Designed and implemented a website with 3 volunteers to archive previous issues which is about to lost
 ▷ Typed 17 articles of old issues to website using LaTeX
 ▷ Awarded as most contributing volunteer of 2022

Turkey Mathematics Club, a student community that organizes both academic and popular activities related to mathematics in Turkey.

- Board Member 2021 - 2022
- Chair of Public Relations Committee 2021 - 2022
- Active Member & Content Creator 2020 - 2021

CONFERENCE CONTRIBUTION *Speaker*, talk titled **Introduction to Mathematical Proofs: $2 + 2 = 5$**
 Mathematics Workshop for High School Students,
 Turkey Mathematics Club, Virtual, June 2020.

CERTIFICATES Fundamentals of Graphic Design *authorized by California Institute of the Arts*

TECHNICAL SKILLS Java SE & Java EE, C++, Object-Oriented Programming, Programming Languages, Data Structures, Algorithm Analysis, Digital Design, Computer Architecture, SystemVerilog