

BERKE YAMAN SUNGUR

 berke-yaman-sungur.github.io/portfolio |  linkedin.com/in/berke-yaman-sungur/
 berkeyamansungur2004@gmail.com |  Etimesgut, Ankara, Turkey

EDUCATION

Bilkent University
Faculty of Engineering

Sep 2022 – Ongoing [Anticipated Graduation Jun 2026]
Ankara, Turkey

- **BSc in Electrical and Electronics Engineering**; CGPA 3.60/4.00
- **Distinctions:** Comprehensive Scholarship Student and High Honor Student since 2022
 - Achieved the 655th ranking in the math-science category and achieved 51st ranking in the language category out of approximately 3 million participants in the national university entrance exam in 2022
- **Teaching Assistant (TA) Experience:**
 - EEE202 Circuit Theory: TA responsible for laboratory work and grading (Spring 2025)
 - EEE102 Introduction to Digital Circuit Design: TA responsible for VHDL tutorials (Spring 2024)
 - PHYS101 General Physics I: TA responsible for laboratory work (Fall 2023)
- **Select Projects:**
 - EEE351 Engineering Electromagnetics: [[Group Project](#)] Designed and built a functional Rubanoid speaker featuring a flat 100-turn coil ($\sim 6\ \Omega$) sandwiched between PVC sheets and driven within a uniform magnetic field created by neodymium magnets, applying electromagnetic principles to real-world audio systems through coil design, magnetic field analysis, and electromechanical energy conversion
 - EEE313 Electronic Circuit Design: [[Individual Project](#)] Designed, simulated (on LTSpice), and implemented a PCB (using DipTrace) for a temperature control circuit maintaining a resistor at a set temperature, utilizing LM324 op-amps for instrumentation amplification of thermocouple signals and a BC238 NPN transistor as the switching element
 - EEE212 Microcontrollers and Embedded Systems: [[Individual Project](#)] Developed a remote-controlled car using NXP FRDM-KL25Z boards and embedded C programming, implementing ADC-based joystick input, UART communication over an RF link with a custom antenna, and PWM motor control for precise speed and steering, gaining hands-on experience in embedded systems, real-time programming, and wireless communication
 - EEE211 Analog Electronics: [[Individual Project](#)] Designed a 27 MHz AM RF transceiver with a superheterodyne receiver, and built it achieving clear two-way voice communication up to 150 m through precise LC filter tuning for frequency stability and low distortion
 - EEE102 Digital Systems Design: [[Individual Project](#)] Designed and built a model car that can self-park using the Basys 3 FPGA and VHDL programming
- **Relevant Coursework:** Digital Communications, Microwave Electronics, Statistical Learning and Data Analytics, Principles of Engineering Management, Feedback Control Systems, Engineering Electromagnetics, Signals and Systems, Electronic Circuit Design, Probability and Statistics, Engineering Mathematics I-II, Circuit Theory, Microcontrollers and Embedded Systems, Analog Electronics, Discrete and Combinatorial Mathematics, Digital Logic Design, Introduction to Programming in Python, Principles of Macroeconomics

Ankara Tevfik Fikret High School

Science/Mathematics Concentration, 100% Merit Scholarship Student

Sep 2018 – Jun 2022

Ankara, Turkey

EXPERIENCE

ASELSAN, Avionics & Guidance Systems

Summer Intern

Jun – Jul 2025

Ankara, Turkey

- Evaluated the feasibility of interfacing Trusted Platform Module (TPM) units with field-programmable gate arrays (FPGA) via JTAG
- Designed and implemented a hardware security circuit for JTAG inputs, including a complete printed circuit board (PCB) design and layout
- Developed a circuit and PCB to interface a camera module with an SoC test board via the MIPI (Mobile Industry Processor Interface) protocol

- Gained expertise in secure hardware design, high-speed communication protocols, and FPGA-based system integration

ASELSAN, Avionics & Guidance Systems

Feb – Jun 2025

Intern

Ankara, Turkey

- Gained hands-on experience in designing and implementing communication interfaces such as RS-232, RS-485, RS-422, I²C, and USB
- Designed hardware circuits and PCB layouts to realize these communication protocols using Siemens (formerly Mentor) PADS
- Strengthened skills in digital hardware design, embedded communication systems, and PCB development, contributing to advanced avionics solutions

Meteksan Savunma A.Ş., Sensors Systems Engineering

Jun – Jul 2024

Summer Intern

Ankara, Turkey

- Fully developed a maritime radar simulation in MATLAB to observe the effects of external factors, such as sea clutter, on a maritime helicopter radar project, which was in early development
- Developed and implemented algorithms to find and track desired targets among the sea clutter in my simulation
- Researched maritime radar technologies and related concepts such as sea clutter, noise, and radar cross-section

CLUBS, SKILLS AND HOBBIES

| | |
|---------------------|--|
| Technical: | Python, C, MATLAB, VHDL, Assembly 8051 |
| Electronics: | LT Spice, Diptrace, Altium, Siemens (formerly Mentor) PADS Vivado, Proteus, Keil uVision, Mbed Studio |
| Language: | Turkish (Native), English (Advanced), French (Advanced) |
| Clubs: | <u>IEEE Bilkent University Student Branch</u> <u>Bilkent University Bridge Club</u> (Chairman of the Audit Board) <u>Riders of Bilkent</u> : Bilkent University Motorsports Club (Founding Member) |
| Other: | <u>ASELSAN</u> Work Life 101 Program Completion Certificate |
| Interests: | Playing the trumpet, cars and motorsports, technology, history, traveling |