Bartu Akyürek - Short Resume
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EDUCATION

2025 – Present PhD, Middle East Technical University
Computer Engineering
2021 – 2025 MSc, Middle East Technical University
Computer Engineering, CGPA: 3.93
2017 – 2021 BSc, Ihsan Dogramaci Bilkent University
Electrical and Electronics Engineering, CGPA:3.00

2016 - 2017 Gazi Anatolian High School
2013 - 2016 Ankara Ataturk Anatolian High School

EXPERIENCES

March 2025 – Present TUBITAK Project Scholar
March 2023 – September 2023 New Media Art Coordinator, Doğan Taşdelen
Contemporary Arts Center Turan Erol Art Atelier (voluntary)
March 2022 – June 2023 TUBITAK Project Scholar, under the project EEEAG-
119E572 "Computation of Transmissions Between Non-Isometric Shapes"
July – August 2020 Intern, Bilkent University EEE Department
July – August 2019 Intern, Desard Tech

PROJECTS (Graduate)

2024 MSc Thesis - Real-Time Secondary Animation with Spring Decomposed Skinning
- A thesis about incorporating dynamic motion into existing animation pipelines through physically simulated rigs.

2023 Styleformer: Transformer based Generative Adversarial Networks with Style Vector – CENG 796 Deep Generative Models
- We have re-implemented this paper from scratch, selected from the top conferences in the field (CVPR 2022).

2023 Engine596: Academic Search Engine – CENG 596 Information Retrieval
- We have implemented a search engine using *Apache Lucene* to index scientific papers dataset.

2023 Adaptive Agent Transformer for Few-shot Segmentation – CENG 502 Advanced Deep Learning
- We have re-implemented this paper from scratch, selected from the top conferences in the field (ECVA 2022) without a published code repository.

2022 Shadow Removal with Paired and Unpaired Learning – CENG 501 Deep Learning
- We have re-implemented this paper from scratch, selected from the top conferences in the field (CVPR 2021) without a published code repository.

SKILLS

Languages: Turkish (native), English (fluent), German (beginner), Japanese (beginner)
Programming languages: MATLAB, Java, C++, Python, Assembly, VHDL
CAD Tools: Blender, AutoCAD, Photoshop, Adobe Illustrator, Altium Designer

PROJECTS (Undergraduate)

2021 4x4 SRAM Design – EEE414 Introduction to VLSI Design
- We have implemented a memory array which can read and write eight 2-bit data within an area of 0.1 mm^2

2021 Handwritten English Letters and Digits Classification – EEE485 Statistical Learning and Data Analytics
- Based on EMNIST dataset, we have implemented Feedforward NN, SVM and Random Forest algorithms from scratch (without using any ML libraries, as a course requirement)

2020 – 2021 LiDAR Prototype – EEE 493/494 Industrial Design Project
- Senior project with a team of six people
- I focused on PCB design of a nanosecond laser driver

2020 PokéGAN – CS464 Introduction to Machine Learning
- A project to produce new Pokémon out of existing ones based on DCGAN structure

2020 New York Times Mini Crossword Solver – CS 461 Artificial Intelligence
- A constraint satisfaction project to solve NYT mini puzzle by WordNet and web-scraped Wikipedia articles

2020 Play TicTacToe with a Computer – EEE399 Bilkent University EEE Department Internship with supervisor Prof. Haldun Ozaktas
- Computer vision based project, detects the white board from its surroundings and the TicTacToe grid, and plays the next move

2019 MakerBand Guitar – EEE 299 Desard Tech Internship
- A toy guitar project which can produce guitar sounds with capacitive touch detection, to teach the user basic electronics with Arduino

2019 Electromagnetic Crane – EEE 351 Engineering Electromagnetics
- A small prototype of an electromagnetic crane using Arduino, which can hold metal objects in mid-air

2019 NOKIA Combat – EEE 212 Microprocessors
- A pixel video game developed with Freedom KL25Z Board using C language, two joysticks and Nokia5110 LCD

2018 PASS THE EEE102 – EEE 102 Introduction to Digital Design
- **Best Project Award**
- An FPGA based video game developed with BASYS3 and VHDL

2018 TRC10 – EEE 211 Analog Electronics
- An amateur transmitter with a bandwidth of 10 meters, whose schematics are given by the university professors