

MUSTAFA MERT SAYGI

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EDUCATION

Columbia University <i>Bachelor of Science</i>	Major: Electrical Engineering Relevant Classes: Signals and Systems, Circuit Analysis (LTSpice), Computer Graphics and Design, Electronic Circuits, Fundamentals of Computer Systems, Python for Engineers, Data structures in Java, Classical and Quantum Waves	Minor: Mechanical Engineering GPA: 4.10 Transcript	May 2024
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EXPERIENCE

Columbia University Formula SAE Racing Club Sept. 2020 - Present

Charging System Lead of the High Voltage Team & Shutdown System Lead of the Low Voltage Team

- Led a team of three and six people respectively as the Charging System Lead and the Shutdown System Lead
- Managed and designed every component of the electric vehicle battery pack charging process including the charging cart, dead man's brake system for the cart, the charging algorithm, and the CAN bus protocol between the charger and the accumulator
- Soldered and tested the Shutdown Circuit and Brake System Plausibility Device, then made required fixes to their designs on KiCad

Columbia University Robotics Club Sept. 2021 – Present

Mechanical Engineering Team on the MATE ROV project

- Designed the frame of an underwater robot to compete in the MATE ROV competition on SolidWorks then manufactured the frame by water jetting and drilling high density polyethylene as well as some 3D printed components
- Designed, 3D printed, and assembled propeller safety guards for the MATE ROVB robot using SolidWorks and Ultimaker Cura

Magnetic Resonance Scientific Engineering for Clinical Excellence Laboratory Jan. 2022 – Present

Undergraduate Researcher

- Designed, programmed, and assembled an auto-calibrated coil winding system for B₀ magnetic field control in an accessible MR scanner localized to the head of the patient

Columbia University Engineering Student Council Sept. 2021 – Present

Technology Representative

- Ensured that the Columbia student body had reliable access to basic technological needs such as computers and printers
- Led two teams of 20+ students to maintain the [WikiCU](#) website as well as the student-lead professor review website [culpa.io](#)

Global Youth Mentorship Initiative Club (GYMI) Sept. 2021 – Present

Vice-President

- Led a 6-member team to publish a podcast series called GYMI Some Time on [Spotify](#) and edited each episode using GarageBand
- Supervised and guided 12 members as they developed curricula for middle-school level classes on ethics and mindfulness

Related Digital (omnichannel campaign management solution provider based in Turkey) July. 2021 – Sept. 2021

IT Intern

- Developed unit tests for approximately 20 REST API methods in .NET Core for company's customer data analysis software
- Designed an app to encrypt and relocate 10,000+ customer files from local storage to a Microsoft Azure Storage Server using SQL

Getir (e-commerce company based in Turkey) June 2018 – Aug. 2018

Coding Department Intern

- Compiled 30,000+ lines of JavaScript code of the Getir application into logic flow diagrams to be used in new employee orientation
- Produced and edited the App Store advertisement video for the Getir application using iMovie

PROJECTS

Harvard CS50: Game Development Track June 2021 – Aug. 2021

Online Course

- Completed 11-Week Online Course where I learned 2D game development with Lua and 3D game development with Unity
- Designed my own [3D maze game](#) that could be played with virtual reality headsets using Unity and coding in C#

The Impact of Social and Emotional Learning on Creativity Development Jan. 2021 – Sept. 2021

Co-Author of a Book Chapter

- Investigated and wrote a [book chapter](#) about the link between SEL and creativity in students
- Published the chapter in the book "Creativity as Progressive Pedagogy: Examinations Into Culture, Performance, and Challenges"

SKILLS

Coding: Python, JavaScript, HTML/CSS, Java, Arduino, Lua, C#, C, C++, MATLAB, Simulink, SQL, .Net CORE, Swift

Design: SolidWorks, KiCAD, LTSpice, Blender, iMovie, GarageBand, GIMP, Photoshop

Languages: English, Turkish, Spanish, Arabic

Soft Skills: Leadership, conscientiousness, communication, time management, perseverance, coachability

Interests: Formula 1, Formula E, Basketball, Piano, Guitar, Stock Trading