

# MUSTAFA ÇAĞATAY SİPAHİOĞLU

ROBOTICIST

## PERSONAL DESCRIPTION

I AM A CONFIDENT AND PASSIONATE ROBOTICIST WITH OVER 9 YEARS OF EXPERIENCE IN ROBOTICS & HIGH EXPOSURE TO ANYTHING RELATED TO AUTOMATION. I AM INHERENTLY CURIOUS AND I'M A QUICK-LEARNER, THIS PARTICULAR SET OF CHARACTERISTICS ALLOW ME TO ASK THE RIGHT QUESTIONS AND APPROACH PROBLEMS FROM DIFFERENT ANGLES.

I WOULD DEFINE MYSELF AS A MECHANICAL PERFECTIONIST WITH AN ARTIST'S SOUL. THIS DRIVES ME TO ALWAYS FIND A MORE EFFICIENT WAY OF DOING THINGS WHILE STRIVING TO UPHOLD BEAUTY. I THOROUGHLY ENJOY WORKING ON CHALLENGING PROJECTS, RESEARCHING AND APPLYING THE KNOWLEDGE THAT I LEARN. I AM RESPONSIBLE, SELF-MOTIVATED AND I BELIEVE I CAN BE A VALUABLE ADDITION TO YOUR ORGANIZATION GIVEN THE CHANCE.

## TECHNICAL SKILLS

- EXTENSIVE RESEARCHING AND REPORTING
- COMPUTER AIDED DESIGN & MANUFACTURING (CATIA, SOLIDWORKS)
- ANSYS MODULES: FLUENT, CFX, THERMAL, STRUCTURAL
- MECHANICAL, THERMAL, FLOW, FLIGHT MECHANICS ANALYSES
- ARM ASSEMBLY, C / C++, HTML+CSS+JS, MATLAB & SIMULINK, PYTHON PROGRAMMING
- MACHINE LEARNING, DATA ANALYSIS WITH NEURAL NETS
- ARM, PIC OR ARDUINO BASED ROBOT DEVELOPMENT
- FREERTOS OR ROS (ROS+V-REP/GAZEBO) BASED ROBOT DEVELOPMENT
- ELECTRONIC CIRCUITRY & SIMULATION (PROTEUS & ARES/EAGLE)
- MICROSOFT OFFICE SUITE, ADOBE PHOTOSHOP, ILLUSTRATOR, PREMIERE PRO, GITHUB

## EXPERIENCE

### • 2021.08-2021.10 DESIGN ENGINEER INTERN - BAYKAR DEFENCE

WORKED AS A DESIGN ENGINEER FOR THE UPCOMING PROJECTS OF BAYKAR DEFENCE. DEVELOPED AND DESIGNED PARTS & ASSEMBLIES FOR ENHANCING STEALTH CAPABILITIES OF UAVS USING DIFFERENT MANUFACTURING METHODS. DID EXTENSIVE LITERATURE RESEARCH, REPORTING AND CODING. DEVELOPED AN OPTIMIZATION ENGINE FOR CALCULATING THE OPTIMAL GEOMETRY FOR THESE PARTS.

### • 2021.07-2021.08 PROCESS ENGINEER INTERN - TURKISH AEROSPACE INDUSTRIES (TAI)

AIDED THE COMPANY WITH THE INSPECTION AND WORK-FLOW OF THE MANUFACTURING OPERATIONS.

### • 2020.10-2021.09 SOFTWARE DEVELOPER - BURST AUTONOMOUS TEAM

BUILT A SELF-DRIVING CAR USING ROS AS PART OF THE BURST TEAM. DEVELOPED CONTROL & DECISION MAKING ALGORITHMS USED IN THE HANDLING OF SENSORY DATA.

### • 2019.06-2019.07 AIESEC GE ROBOTICS INTERNSHIP IN XFAB EGYPT, CAIRO

WORKED ON THE CONCEPT DESIGN OF A SUN-TRACKING SOLAR PANEL. GAINED EXPERIENCE REGARDING THE PROFESSIONAL WORK-PLACE, TEAM-WORK AND START-UP MANAGEMENT.

### • 2015-2018 PRESIDENT - PRIVATE ARI SCHOOLS ROBOTICS SOCIETY

PARTICIPATED IN, LED AND OVERSAW ALL OF THE SOCIETY'S PRODUCTIVE, EDUCATIONAL AND ORGANIZATIONAL MATTERS. LESSONS TAUGHT INCLUDE: 3D DESIGN, PCB DRAWING, PCB PRODUCTION, ARDUINO, PROTOTYPING, CODING (C).

• SEVERAL PROJECTS THAT I WORK ON AS A HOBBY OR AS PART OF MY EDUCATION. YOU CAN FIND MY FULL PORTFOLIO AT: [mcsipahioglu.com](http://mcsipahioglu.com)

## ACCOMPLISHMENTS

- 2021 - TURKIYE GRADUATE SELECTION EXAM (ALES) - 9TH\* PLACE FOR SCIENCE & MATHEMATICS
- 2021.11.20 - ETS TOEFL iBT - 114/120 - READING:30, LISTENING:29, SPEAKING:27, WRITING:28
- 2018 - TURKIYE NATIONAL UNIVERSITY EXAM - 69TH\*\* PLACE FOR SCIENCE & MATHEMATICS
- 2018 - TURKIYE NATIONAL UNIVERSITY EXAM - 78TH\*\* PLACE FOR FOREIGN LANGUAGES
- 2018 - ÇANKAYA UNIVERSITY 8TH INTER-HIGH SCHOOL MATH CONTEST - 2ND PLACE
- 2018,2017,2016,2015 - INTERNATIONAL METU ROBOTICS DAYS - PARTICIPATION
- 2017 - BALTIC SEA PHILOSOPHY ESSAY EVENT 2017 - HONORARY MENTION
- 2017,2015 - MINISTRY OF EDUCATION INTERNATIONAL ROBOT COMPETITION - PARTICIPATION
- 2016 - PRIVATE ARI SCHOOLS MODEL UNITED NATIONS - PARTICIPATION
- 2014 - PRIVATE ARI SCHOOLS 6TH MATH OLYMPIAD - GOLD MEDAL
- 2014 - PROJECT SCHOOL FOR THE MATHEMATICALLY GIFTED (MÜYEPO)

\*AMONG OVER 300,000 PARTICIPANTS.

\*\*AMONG OVER 2,000,000 PARTICIPANTS.

## CONTACT

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## LANGUAGES

TURKISH ● ● ● ● ●

ENGLISH ● ● ● ● ●

SPANISH ● ● ○ ○ ○

ITALIAN ● ○ ○ ○ ○

## EDUCATION

### 2022-CURRENT

M.Sc. POLITECNICO DI MILANO

AUTOMATION & CONTROL ENGINEERING  
MILANO, ITALY

### 2018-2022

B.Sc. BOĞAZİÇİ UNIVERSITY  
MECHANICAL ENGINEERING  
İSTANBUL, TURKIYE  
GRADUATION GPA: 3.80/4.00  
(3RD IN MY CLASS)

### 2014-2018

HIGH SCHOOL PRIVATE ARI SCHOOLS  
SCIENCE HIGH SCHOOL  
ANKARA, TURKIYE  
(FULL SCHOLARSHIP)  
GRADUATION GPA: 99.23/100.00

## RESEARCH INTERESTS

- ROBOTICS & AUTOMATION
- DECENTRALIZED CONTROL
- BOT DEVELOPMENT
- DEFENCE INDUSTRY
- CRYPTOGRAPHY
- GASTRONOMY

## HOBBIES

- INVENTING & REDESIGNING
- TRAVELLING
- WRITING (USUALLY PHILOSOPHICAL ESSAYS)
- HORSE RIDING
- TRADITIONAL TURKISH ARCHERY
- FILM ENTHUSIAST
- MUSIC ENTHUSIAST

## PERSONALITY TRAITS

- DETAIL-ORIENTATION, PERFECTIONIST
- LEADERSHIP & MANAGEMENT
- QUICK LEARNER & HARD WORKING
- CRITICAL THINKING
- CREATIVITY & CURIOSITY
- SELF-TEACHING, SELF-MOTIVATED
- EXCELLENT VERBAL-WRITTEN COMMUNICATION
- TEAM-PLAYER
- RESPONSIBLE
- PRACTICAL