

# Tutku Kaya

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Combining my background in Mechatronic Engineering with a passion for artificial intelligence and machine learning equips me with both analytical and creative thinking. This fusion provides me with a unique depth in problem-solving and the ability to generate fresh ideas.

As a Mechatronic Engineer aspiring to advance in the fields of artificial intelligence and machine learning, I am steadfast in my commitment to shaping the technologies of the future. This determination and dedication support my belief in building a successful career in this domain.

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## Technical Skills

- Python/Scikit-learn/Pandas/Numpy/Matplotlib/Seaborn
- Machine Learning
- Linux
- Git/Github
- C/C++

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## Education

KAZIMIERZ WIELKI UNIVERSITY | POLAND  
Erasmus | 2023-2024

DUZCE UNIVERSITY | TURKEY  
Bachelor of Mechatronics Engineering | GPA 3.05 | 2019-2024

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## Work

ENGINEER INTERN  
MAMURTECH | 2023

- The primary focus of my internship was to be involved in the software development processes of complex embedded systems. During this period, I deepened my understanding of the interactions between hardware and software.
- I developed original software solutions for embedded systems using the C/C++ programming language. These solutions ensured efficient hardware utilization and contributed to optimizing functionality.
- I improved my collaboration and communication skills within the team. I made regular contributions during project meetings and progress reports.

ENGINEER INTERN  
AIS Technology | 2022 - 2023

- I helped to develop custom software solutions for embedded systems, with a particular focus on STM32 microcontrollers, using the C/C++ programming languages. These solutions were designed to ensure efficient utilization of hardware resources and optimization of system functionality.
- I worked on various projects involving STM32 microcontrollers and IoT applications, strengthening my ability to work with real-time operating systems and sensor interfacing.

# Volunteer Experience

ASSOCIATION OF MECHATRONICS ENGINEERS  
IT Coordinator (2020 - Present)

- In my role as the IT Coordinator for the association, I am responsible for managing the information technology (IT) infrastructure of the organization and handling other IT-related tasks.

DUZCE UNIVERSITY TECHNOLOGY AND INFORMATION SOCIETY CLUB  
Communication Unit Coordinator (2022 - 2023)

- I actively contributed to the club by managing its social media accounts and participating in various events and activities.

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# Competitions

TEKNOFEST  
TECHNOLOGY FOR HUMANITY  
Team Leader

- The competition's aim is for individuals to merge their technological expertise with social responsibility to create community-benefiting projects.
- My team and I are engaged in the development of wearable technology that aids individuals in predicting the likelihood of a heart attack using proprietary AI algorithms.

TEKNOFEST  
DIGITAL TECHNOLOGIES IN INDUSTRY  
Software Team Member

- The competition seeks to create robots, either manual or autonomously guided, for internal factory logistics and warehouse operations, with a focus on navigating predefined paths and transporting specific loads between points.
- I took part in a competition as a member of the software team, where my primary responsibility was to design and develop an algorithm and software for an autonomous robot. The key objectives were to enable the robot to effectively navigate its environment, avoid obstacles, and successfully determine its path to the designated endpoint.

DÜZCE TEKNOPARK ENTREPRENEURSHIP MARATHON  
Team Leader | 2nd Place Award

- Participating in the competition, I presented my entrepreneurial concept, a wearable technology designed to forecast heart attacks and transmit location data to an emergency call center.
- I was actively engaged in developing the algorithm and software for this technology, employing a fusion of artificial intelligence and embedded systems.
- I carried out the development process using Python, utilizing the programming language's capabilities to accomplish the task effectively

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# References

ASSOCIATE PROFESSOR PH.D. GÜRCAN SAMTAŞ  
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