

# MEHMET SEMIH BABACAN

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## EXPERIENCE

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### Project Management Intern

Aug. 2022 - Oct. 2022

Baykar Defense / Cezeri Artificial Intelligence Robotics Technologies

*Istanbul, Turkey*

- Conducted research on state-of-the-art Continuous Improvement and Continuous Deployment infrastructures, specifically GitHub Actions and GitLab CI/CD.
- Examined the advantages and disadvantages of Micro Services in relation to our business type. Implemented a system of code analysis and Continuous Development and testing processes, presented and reported results to my supervisors.
- Gained profound insight into the field of DevOps and Robotics Operations. Contributed to the company's awareness of state-of-the-art implementations and advancements.

### STAR Presidential Research Intern

Jan 2022 - July 2022

Scientific and Technological Research Council of Turkey (TUBITAK)

*Gebze, Turkey*

- TUBITAK BILGEM Blockchain Research Laboratory, Researched Permissioned Blockchain networks and Central Bank Digital Coins.
- Developing steps of a Digital Currency for the Central Bank of Turkey utilizing Hyperledger Fabric, Ethereum VM, GoLang, JavaScript, TypeScript, Solidity, Web3js, EthereumJS, and IPFS. Researched cryptography in Rust and JS.
- Built an NFT creation system to deepen my understanding of Blockchain technology and briefed the team on novel resources and emerging fields in the field of Web3 and Blockchain Technologies.

### Mobile Application Developer Scholar

Nov. 2021 - July 2022

Google Turkey and Republic Of Turkey Ministry of Industry and Technology, T3 Foundation

*Istanbul, Turkey*

- Underwent seven months of training in Mobile Application Development with Flutter, Entrepreneurship, Financial Management, Human Resources, and Legal Sides of Entrepreneurship, and completed Google's Project Management Specialization.
- My team's app, Hesap, a contactless paying and ordering application for restaurants and cafés, won the competition.
- Developed the BackEnd of the application, coded the MVP, and planned the first future steps and marketing strategy.
- Presented it to a jury in a final competition. ([See the Repo and Try it](#)) ([See the Landing Page](#))

### Production Intern

July 2020 - Aug. 2020

KGM Heavy Machinery Manufacturing)

*Istanbul, Turkey*

- Performed a thorough analysis of the tools, machines and materials used in the factory, constructed the flow of products in the factory, measured worker efficiency based on outputs, and performed Work Methods Analysis to identify value-adding and non-value-adding activities in the workflow.
- Conducted benchmarking analysis, SWOT Analysis and Ergonomic Analysis of the working environment and employee working conditions. Reported and presented my findings and insights to the head of the company.
- Gained broad experience in Operations Management by analyzing the factory's production processes and identifying areas for improvement.
- Demonstrated my ability to think critically, problem-solve, and effectively communicate findings to key stakeholders through the aforementioned analyses and recommendations.

## UNIVERSITY RESEARCH CLUB EXPERIENCE

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**Deep Learning Engineer in Real Time Applications**  
Alternative Energy Systems Club / Yildiz Technical University

Nov. 2020 - Aug. 2021  
*Istanbul, Turkey*

- Improved the object detection algorithm and conducted research on novel publications and methods to enhance our real-time object detection capabilities for the national competition of Autonomous Cars.
- Trained object detection models for real-time applications by utilizing Nvidia's TensorRT and TKDNN frameworks, and C language's effective performance for real-time applications.
- Structured a data set for the AI model and utilized Tableau to better understand that data set. Introduced this new approach and improved the team's understanding of the data-gathering process.
- Structured the final object detection pipeline. By being trained with Darknet Yolov4, configuring with the required parameters, producing the binaries for TensorRT and using it in TKDNN framework, improved the instance rate of real-time object detection from an average of 36 to 140 which is a phenomenal increase in real-time object detection models.

## VOLUNTEERED WORK EXPERIENCE

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**Rising Star Scholarship Holder**  
Turkish Technology Team Foundation

Feb. 2021 - Nov. 2022  
*Istanbul, Turkey*

- Underwent training in technology and entrepreneurship, including software development, AI, the internet of things, financial management, marketing and legal aspects of entrepreneurship, mentored by industry experts and entrepreneurs.
- Broadened my network. Showcased my skills in events, and received mentoring for my technology-based projects along the way .
- Assisted Teknofest Organization Team in organizing the events and competitions as a scholar of the Turkish Technology Team Foundation and participated in Take-Off International Startup Summit. I developed projects and implemented them in the course of my scholarship. Notable ones are:
  1. **Scholarship Evaluation System:** Developed a support system for the scholarship evaluating process to streamline the process of evaluating and matching applicants' statements. The system automates the querying of applicants, downloading and evaluating the validity of their statements and provided documents.
    - The system provides staff with easy access to applicant documents and the ability to edit data through a desktop application. This application made the process faster for thousands of applicants and facilitated the process for the evaluation team.
  2. **Technology Movement Analysis:** As T3, the organization has a great source of information from the competitors that were about 600.000 in the previous year's domestic competition.
    - Prepared a project to analyze the data, creating a map of Turkey of the technological inclinations of the youth and by using Tableau, prepared a presentation to be presented to the municipalities and the organizations to direct the money spent for the projects and resources in a more efficient manner according to Vision of Turkey as Technology Leader.

## EDUCATION

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**Industrial Engineering**, Yildiz Technical University  
GPA: 3.22

2018 - 2023

**Computer Engineering**, Yildiz Technical University  
Double Major GPA: 3.08

2020 - 2024

## SKILLS

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<b>DevOps</b>	GitHub Actions, GitLab, Git, Docker
<b>Project Management</b>	Clickup, Asana, Jira, Trello, Notion, Excel
<b>Programming Languages</b>	Python, JavaScript and TypeScript, Dart, C, C++, Rust, R, MATLAB, SQL, Bash
<b>Mobile App. Dev.</b>	Dart and & Flutter, Firebase, Supabase
<b>Desktop App. Dev.</b>	Python (PyQt, Flet, and Tkinter), Flutter, C++ (Qt)
<b>Web App. Dev.</b>	ReactJs, NextJs, GatsbyJs (One Page Apps.) Web3Js, Sanity, Vercel, SQL
<b>Blockchain Dev.</b>	EthereumVM (Solidity, JavaScript and Typescript, Go), RemixIde, Circom 2
<b>Cloud and Backend</b>	Python, Javascript and TypeScript, Firebase, Google Cloud
<b>Data Science</b>	Python (Pandas, Polars, Numpy, Tensorflow, XGBoost, Scikit-Learn), R
<b>Data Visualization</b>	Python (Matplotlib Seaborn), Tableau, R (ggplot, Rayshader)
<b>Business Intelligence</b>	Tableau, Python(Pandas, Matplotlib, Seaborn, Numpy)
<b>Artificial Intelligence</b>	Primarily Python (Pytorch, Tensorflow, Scikit-Learn, XGBoost)
<b>Optimization</b>	GAMS, Python (Gurobi, OR-Tools)
<b>Developer Tools</b>	Git, Vim, CoPilot, ChatGPT VS Code Insiders, Android Studio, IntelliJIDEs
<b>Language Skills</b>	English - Full Professional Proficiency, Spanish - Working Proficiency, Turkish - Native

## CERTIFICATES

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<b>Google</b>	Project Management Specialization
<b>Google Game and App. Dev. Academy</b>	Mobile Application Development
<b>Google Game and App. Dev. Academy</b>	Technology Entrepreneurship
<b>Google Game and App. Dev. Academy</b>	Mobile Application Development
<b>Codecademy</b>	R, Python, Data Visualization, Data Analysis Certificates
<b>DeepLearning.AI</b>	Neural Networks and Deep Learning
<b>DeepLearning.AI</b>	Convolutional Neural Networks
<b>DeepLearning.AI</b>	Hyperparameter Tuning, Regularization and Optimization
<b>DeepLearning.AI</b>	Structuring Machine Learning Projects
<b>Mennan Sahin - TRT News Anchor</b>	Diction and Effective Speaking in Turkish

## EXTRA-CURRICULAR ACTIVITIES

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- I actively develop mobile applications, web applications and desktop applications and for those, I like to collaborate with the people around me. I love to spend my free time helping people and trying to come up with new things and build them.
- I like to do trekking, do fitness, and lift weights, usually do these activities with my close friends.
- I like to do intensive research and read documents and books in the field of history, philosophy, economics, languages, cultures, psychology, and any topic I would find particularly interesting.
- I like to gather with my international friends and plan language exchange events, discuss various and diverse topics and share the diverse approaches of different cultures.