

# MEHMET SEMIH BABACAN

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## EDUCATION

**Industrial Engineering**, Yildiz Technical University 2018 - 2023  
GPA: 3.22

**Computer Engineering**, Yildiz Technical University 2020 - 2024  
Double Major GPA: 3.08

## SKILLS

<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

## EXPERIENCE

**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 Researches Laboratory, Researched Permissioned Blockchain networks and Central Bank Digital Coins.
- Had a role in the developing steps of a Digital Currency for the Central 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

Google Turkey and Republic Of Turkey Ministry of Industry and Technology

Nov. 2021 - July 2022

*Istanbul, Turkey*

- Mobile Application Development project initiated by Google, Republic Of Turkey Ministry of Industry and Technology, Turkish Technology Team Foundation, and Turkey Entrepreneurship Foundation, 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 coffees, 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

KGM Heavy Machinery Manufacturing)

July 2020 - Aug. 2020

*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 EXPERIENCES

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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. Conduct research on novel publications and methods to enhance our real-time object detection capabilities for the national competition of Autonomous Cars.
- By utilizing Nvidia's TensorRT and TKDNN frameworks, and C language's effective performance, trained object detection models for real-time applications.
- Structured a dataset for the AI model and utilized Tableau to better understand that dataset. Introduced this new approach and improved the team's understanding of the data-gathering process.
- The crucial outcome for the team that paved the way for winning the competition was a dramatic increase in inference rate (FPS) from an average of 36 to 140 in real-time applications.

## 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.
- Had opportunities to broaden my network. Showcased my skills in events, and received support for my technology-based projects.
- Helped to organize of Teknoest and participated in Take-Off International Startup Summit. I developed projects and implemented them in the course of my scholarship. Notable ones are;

- **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 since there are thousands of applicants.
- **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.
  - Having data at that scale, Prepared a project to analyze the data, creating a map of Turkey of the technological inclinations of the youth and by using Tableau, preparing a presentation to be presented to the municipalities and the organizations to improve the conditions further and direct the money-spent for the projects and resources in a more efficient manner as being aligned with the vision of Technology Leader of Turkey.

## 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 since they always have an idea. 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.