

MEHMET SEMIH BABACAN

+90 555 143 2027 — Istanbul, Turkey

semih.babacan@std.yildiz.edu.tr — msbabacan.tech — [linkedin/mehmetsemihbabacan](https://linkedin.com/in/mehmetsemihbabacan) — [github/koltukutsu](https://github.com/koltukutsu)

WORK 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 Research Laboratory, Researched Permissioned Blockchain networks and Central Bank Digital Coins.
- Had a part in developing 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

- Received extensive 7-month 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 mobile application, Hesap, a contactless paying and ordering application for restaurants and cafés, won the competition.
- Developed the Back-End 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

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.

VOLUNTEERING WORK EXPERIENCE

Rising Star Scholarship Holder

Turkish Technology Team Foundation

Feb. 2021 - Nov. 2022

Istanbul, Turkey

- Received 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 the Teknofest Team in organizing the events and competitions as a scholar of the Turkish Technology Team Foundation and participated in Take-Off International Startup Summit.
- 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, proposed to prepare a detailed presentation to be shown to various organizations to direct the money spent on the projects and resources in a more efficient manner according to Vision of Turkey as Technology Leader.

EDUCATION

Industrial Engineering, Yildiz Technical University

GPA: 3.22

2018 - 2023

Computer Engineering, Yildiz Technical University

Double Major GPA: 3.08

2020 - 2024

SKILLS

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

CERTIFICATES

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

INTERESTS

- 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 go trekking, do fitness and lift weights.
- 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 meet with my international friends and plan language exchange events, discussing various and diverse topics and approaches of different cultures.