

Emircan Tepe

SOFTWARE ENGINEER | ISTANBUL, TURKEY

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Education

Dokuz Eylül University

İzmir, Turkey

BS COMPUTER ENGINEERING

09/2020 - 10/2024

- Graduated with a GPA of **3.18/4.0**
- Graduation/Senior project completed in collaboration with Inbestme and **funded by the TUBITAK 2209 grant**.
- Click [here](#) for the list of courses. Select the Course Unit Code on the linked webpage to access its syllabus.

University of Zurich

Zurich, Switzerland

DEEP DIVE INTO BLOCK-CHAIN, INTERNATIONAL SUMMER SCHOOL

06/2021 - 07/2021

- Attended the International Summer School at the University of Zurich on a **full scholarship**.
- Studied the three key pillars of blockchain systems and distributed ledgers, namely the technology, the economics, and the legal aspects behind it.
- Highly interactive program, with both theory and hands-on practice sessions offered by blockchain experts and crypto-company founders from all around the world (45 different lecturers from academia and industry).

Work Experience

Orion Innovation

Istanbul, Turkey (Remote)

SOFTWARE ENGINEER

01/2026 - Present

Vitrosens Biotechnology Inc.

Istanbul, Turkey (Hybrid)

SOFTWARE ENGINEER

12/2024 - 01/2026

- Awarded one patent as part of an ongoing R&D project. Designing and developing end-to-end product features using **FastAPI** for backend services and **Preact** for frontend interfaces, owning the full lifecycle from UI to API and data flow.
- Building scalable and testable backend systems in **Python**, with a strong focus on async programming, concurrency, and clean architecture for performance and reliability.
- Actively participating in **code reviews**, both giving and receiving feedback, and maintaining high code quality through collaborative **GitHub-based workflows**, including pull requests, reviews, and version control best practices.
- Applying strong software engineering fundamentals (SOLID, design patterns, clean code), with measurable impact such as a **77% reduction in execution time** (115.49s → 26s).
- Reporting technical progress and project status to executives, and contributing to hiring through technical interviews and candidate evaluations.

Inbestme

Barcelona, Spain (Hybrid)

SOFTWARE ENGINEERING INTERN

07/2024 - 10/2024

- Supported by EU Erasmus+ Internship program, worked as an intern under the supervision of Dr. Ferad Zylkyarov. Worked in an **international environment** and supervised by senior engineers.
- Developed **end-to-end** solutions, from designing and implementing API endpoints to integrating third-party APIs, and incorporating them into the front-end, which resulted in a complete end-to-end solution. The tech stack included **.NET (C#)**, **Vue.js**, **MongoDB**, and **Microsoft SQL Server**.
- Regularly presented proposed solutions and participated in **code reviews** 2-3 times per week, receiving both oral and written feedback from senior engineers.

Innovile

İzmir, Turkey (Hybrid)

JUNIOR SOFTWARE DEVELOPER

10/2023 - 07/2024

- Received an offer after a successful internship of one month. Worked part-time as a junior software developer in final year at university in a software team operating with Scrum methodology, running 2-week sprints and managing tasks using Jira.
 - Contributed to **feature development** and **bug fixing** in telecommunication domain, utilizing the **.NET** environment with **Oracle** and **PostgreSQL** databases.
 - Also worked on a machine learning project aimed at automating the load balancing of base stations using python and libraries such as NumPy, scikit-learn, pandas.
 - Following CRISPR-DM process, conducted data analysis, feature extraction, model creation and evaluation processes. Wrote detailed documents.
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- **Arçelik (R&D Intern, 07-08/2023):** Worked on 3D measurement and hand-in-eye calibration; developed a communication program for machine vision cameras. [\[Blog\]](#)
 - **Microsoft (Imaginer, 11/2022-06/2023):** Participated in a 6-month mentorship program; completed a sustainability-themed ML project in farming. [\[Blog\]](#)

Research Experience

Koç University

İstanbul, Turkey (Remote)

SUPERVISOR: DR. UĞUR TEĞİN

01/2023 - 11/2023

- Was a member of the Laboratory of Photonic Technologies Lab.
- Conducted interdisciplinary research in the field of **reservoir computing**. Worked under the supervision of Dr. Uğur Teğin.
- Produced new methods, designed experiments (From Genetic searching algorithms to various Cellular Automata models.), reported and presented results.

Koç University

İstanbul, Turkey (Remote)

SUPERVISORS: PROF. DR. BARIŞ TAN, DR. SIAMAK KHAYYATI

06/2022 - 10/2022

- Worked in Prof. Tan's team as part of Koç University Summer Research Program (KUSRP) on a study named "Performance Evaluation of Manufacturing Systems by Using Supervised Learning Methods".
- Took on various responsibilities, including conducting experiments, and preparing and presenting reports.
- Applied preprocessing methods, produced Machine Learning models, tested and presented the results.

Dokuz Eylül University

İzmir, Turkey (Hybrid)

SUPERVISOR: PROF. DR. DERYA BİRANT

10/2021 - 06/2022

- Worked under the supervision of Assoc. Prof. Dr. Derya Birant, in the area of Machine Learning, specifically Animal Activity Recognition.
- Took on responsibilities and tasks resulting in the publication of an article titled "Classifying horse activities with big data using machine learning" in the Kuwait Journal of Science's Special Issue on Machine Learning for Big Data.
- The GitHub repository of the work is available on [this link](#).

Publications

Birant, D., Tepe E., 2022. Classifying horse activities with big data using machine learning, Kuwait Journal of Science, Special Issue on Machine Learning for Big Data

Şahin N., Tepe E., Birant, D, 2022. A K-Shot Learning Algorithm for Transportation Mode Identification, Journal of Artificial Intelligence and Data Science, Volume: 2 Issue: 2

Professional references related to each experience above are available upon request.