Baran Deniz Korkmaz

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Education

Technical University of Munich

Munich, Germany

M.Sc. Computer Science - GPA: 1.5 (German grading system, equivalent to 3.5/4.0 US scale)

April 2021 - December 2024

• Thesis: Time Series Foundation Models for Model-Based Reinforcement Learning.

Boğaziçi University

Istanbul, Turkey

B.Sc. Computer Engineering - GPA: 3.22/4.0

September 2016 - March 2021

• Thesis: Deepfake Detection

• Placement: Ranked 709th out of 2 million students in National University Exam.

Work Experience

Amazon Web Services

Berlin, Germany June 2025 - Present

Software Development Engineer

Developing cutting-edge software systems that serve millions of users worldwide.

Netlight Consulting

Munich, Germany

 $IT\ Consultant$ January 2025 - April 2025

• Developed an internal feedback application using Spring Boot for the backend, MySQL for data storage, RabbitMQ for asynchronous messaging, and ReactJS for the frontend interface.

Siemens AG

Munich, Germany

May 2024 - December 2024

Master Thesis Student • Exploring the applications of time series foundation models on model-based reinforcement learning.

Infineon Technologies

Munich, Germany

Software Engineer - Working Student

May 2023 - May 2024

- Developed a RESTful web service for ordering test machines using the CQRS pattern in ASP.NET Core with MySQL, streamlining request handling and data access.
- Built a containerized Proof-of-Concept (PoC) using Ansible for automated software deployment across multiple machines, replacing manual processes. Hosted the application server on OpenShift, using Docker, Kubernetes, and Kustomize.
- Developed CI/CD pipelines to automate the build, test, and deployment workflows for chip testing libraries using Jenkins.

Huawei Technologies

Munich, Germany

Software Engineer - Working Student

September 2021 - April 2023

- Developed SPAD core emulation software in Python to estimate object detection probabilities for autonomous driving applications. Achieved a ~16x reduction in runtime by implementing parallel computation across multiple CPU cores using OpenMPI.
- Developed a data pruning technique for domain generalization in the task of person re-identification in **Python**.

Pointr Software Engineer - Intern Istanbul, Turkey

January 2020 - February 2020 Maintained backend server written in Flask API. Implemented behavior-driven mobile test scenarios in Java using Appium, Gherkin, and Cucumber. Implemented an iOS mobile application using Swift.

Projects

Delivery System

Code

- Developed a delivery system deployed on **AWS** for a semester project.
- Application services implemented by Microservice architecture pattern with API Gateway for load balancing. Backend microservices implemented using Spring Boot with MongoDB, and ReactJS on the client side.

Route Planner: Mandatory Internship at Forsailors

Website

- Developed a web application to help sailors efficiently plan their routes using interactive maps.
- The application was built using **MERN** stack and features a custom map interface integrated with MapBox.

Bachelor's Projects: Repository containing all source code for undergraduate projects at Boğazici University.

Code

Bachelor's Thesis: DeepFake Detection

Code

Developed an ML model that detects deepfake images in Python using TensorFlow.

CS Docs: A personal blog about data structures and algorithms.

Website

Skills

Programming Languages: Java, Python, C++, C#, JavaScript, SQL, Solidity

Backend & Frontend & DevOps: Spring Boot, .NET, ReactJS, Docker, Kubernetes, Jenkins, Ansible, GitLab CI&CD

Cloud & Database Systems: AWS, GCP, OpenShift, Vercel, MySQL, MongoDB

Libraries & Developer Tools: Git, Postman, PyTorch, TensorFlow, OpenMP, OpenMPI, Weights & Biases, LaTeX

Languages: Turkish (Native), English (Proficient), German (Beginner), French (Beginner)

Algorithmic Skills: Solved 100+ DSA problems on LeetCode. For my LeetCode profile, click here.

Extracurricular Activities

Congress Member Istanbul, Turkey

Beşiktaş JK

May 2023 - Present