Burak Şen Full Stack Software Developer

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WORK EXPERIENCE

Full Stack Software Developer Jul 2024 – present | Munich, Germany
TUM Commonroad
- Spearheaded the enhancement of the TUM Commonroad autonomous driving framework's website, serving **500+ active users** and **boosting engagement metrics by 15%.**
- Ensured **99% application uptime** through robust backend management and proactive maintenance.
- Optimized page creation workflows by implementing efficient Markdown rendering solutions.
- Utilized technologies including **ReactJS, Python, Django, Docker, and MaterialUI** to deliver high-quality software solutions.

Volunteer Software Developer Apr 2025 | Italy (Remote)
Zant-Foundation
- Worked on the **Z-Ant project**, **open-Source SDK** for easier and optimized deployment of **Neural Networks** on **edge devices.**
- Worked **Zig based backend server**, which uses **zap package** to serve the api.
- **Code generation** from **zant micro instructions** to **zig language.**

Asistant Student (Software Development) Dec 2022 – Oct 2023 | Munich, Germany
TUM School of Computation, Information and Technology
- Developed a **module creator/editor application** for the TUM School of Computation, Information and Technology, managing the project from inception to deployment.
- Architected and deployed a module editor application that accelerated workflow efficiency by **10% for 100+ faculty members,** while **reducing training time for new users.**
- Designed a robust system architecture using **ReactJS, ExpressJS, CouchDB, Docker, Redis, Nginx, and Shibboleth SP** to ensure scalability and reliability.

Software Engineer Apr 2022 – Aug 2022 | Istanbul, Turkey
Map E-Commerce & Data Services Inc.
- Engineered supply chain solutions, improving **data interoperability** and r**educing system processing time by 15%.**
- Engineered a **high-throughput data conversion system processing 150 million EDI messages annually**, seamlessly handling **XML, JSON, and VDA** format conversions with **99.9% accuracy.**
- Maintained a **Go backend** responsible for managing **hundreds of products**, ensuring system reliability and scalability.
- Utilized technologies such as **NodeJS, C++, and PHP** to deliver efficient and high-performance solutions.

Data Science Intern Nov 2021 – Jan 2022 | Istanbul, Turkey
T.R. Presidential Human Resources Office
- Contributed to the development of **data science applications** in the Human Resources department, supporting national-level projects.
- Orchestrated analysis and visualization of **10-million-row datasets** using **R**, **generating actionable insights** that guided national-level HR policy decisions.
- Created clear and interactive visualizations to support decision-making and enhance project outcomes.
- Played a key role in ensuring data accuracy and optimizing workflows for large-scale datasets.

Software Development Intern Aug 2021 – Sep 2021 | Istanbul, Turkey
IBM
- Collaborated with the enterprise BPM team to **enhance IBM's Business Process Manager platform**, **serving 50+ enterprise customers.**
- Engineered and maintained **critical customer service application features**, ensuring **99.9% platform availability**.
- Implemented **dual-language support** (English/Turkish), expanding **service accessibility** for **international customers**.
- Leveraged Java and JavaScript to **deliver robust, scalable solutions** aligned with enterprise architecture standards.

Software Development Intern Jul 2021 – Aug 2021 | Istanbul, Turkey
Dogus Technology
- Engineered key features for an enterprise **automotive finance platform** serving **20+ companies and thousands of users**.
- Architected and deployed an **ASPX-based vehicle feature listing portal**, **streamlining inventory management for dealerships.**
- Developed an **intuitive POS device integration interface**, establishing **groundwork for company-wide payment system rollout.**
- Leveraged **ASP.NET** and **MS-SQL** to build **scalable**, **enterprise-grade** solutions serving **multiple dealership networks**.

EDUCATION

Master of Science in Informatics Oct 2022 | Munich, Germany
Technical University Of Munich

Bachelor of Science in Computer Engineering Sep 2017 – Jun 2022 | Istanbul, Turkey
Istanbul Technical University
- GPA: 3.16

PROJECTS

burakssen.com Nov 2023 – present
Personal portfolio website
- Developed a **portfolio page** for **showcasing my experiences** and **projects.**
- Implemented with **ReactJS, Vite, TailwindCSS, Shadcn/ui**

QuitMe May 2024 – present
A macOS utility application for terminating ui applications.
- Developed using **swift** and **swift ui.**
- Implemented **custom delegate** for fetching running applications.
- Added **launch on login** functionality
- Implemented an **Ignore list for applications**.
- Implemented **custom shortcuts** for improved user convenience.

Kanban-Board Feb 2024 – Mar 2024
A simple Kanban-Board
- Developed a simple **Kanban Board application.**
- Implemented with **NextJS, Framer-Motion** and **Typescript.**

Path Finding Visualiser Jan 2024 – Feb 2024
A visual path finding algorithm implementation.
- Implemented **Multiple path finding algorithms**.
- **Animated visuals** created.
- Implemented **A*, Dijkstra, BFS, DFS** algorithms.
- **Pit Stops** added for **A* algorithm.**
- **Pause/Resume** functionality.

Boids Jan 2024 – Feb 2024
A flocking simulation written in C++
- An implementation of **Craig Reynolds' flocking algorithm.**
- It has three separate stages: **Separation, Alignment, Cohesion**
- Used technologies: **C++, raylib**

Linear Regression Visualization Jan 2024 – Feb 2024
A Linear Regression Visualization using C++ and Raylib
- A simple **linear regression visualisation.**
- **UI** is written with **C++ Raylib library**
- The result is shown by a **line drawn on the graph** and its equation.

Game of Life Jan 2024 – Feb 2024
A Conway's game of life implementation on C++
- **Conway's game of life** a basic **life simulation** with simple rules.
- Implemented a **grid system** which can **create big or small cells.**
- Implemented **pause simulation** feature.
- Used technologies: **C++, CMake**
- Used frameworks: **raylib**

Sorting Visualiser Jan 2024 – Jan 2024

A sorting visualisation application written in C++.

- Developed **multiple sorting algorithms**.
- **Visualisation** for each algorithm.
- **Live update** on visual representation of the arrays.
- Notable algoritms: **HeapSort, MergeSort, QuickSort**
- Used technologies: **C++, CMake**
- Used frameworks: **raylib , ImGui , rlImGui**

ORGANIZATIONS

ZantFoundation Apr 2025 – present

Volunteer Developer

- Developed the **architecture for an open-source SDK** enabling seamless optimization and deployment of **machine learning** models on **embedded and edge devices.**

ITU ACM Student Chapter Sep 2019 – Jun 2021 | Istanbul, Turkey

Member

- Have been **an instructor for the ITU ACM C course.**