




# Burak Şen

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## PROFESSIONAL EXPERIENCE


### Full Stack Software Developer

TUM Commonroad 

07/2024 – present  
Munich, Germany

- Is part of a team that works on **tum commonroad autonomus driving framework's** website.
- Developed and maintained the **frontend** and **backend** part of the website.
- Technologies used are **ReactJS, Python, Django, Docker, MaterialUI**


### Asistant Student (Software Development)

TUM School of Computation, Information and Technology 

12/2022 – 10/2023  
Munich, Germany

- Is **assistant student** of **Dr.-Ing. Michael Zwick**.
- Have been developing a **module creator/editor app** for **TUM School of Computation, Information and Technology**.
- Used technologies: **ReactJS, ExpressJs, CouchDB, Docker, Redis, Nginx, Shibboleth SP**.


### Software Engineer

Map E-Commerce & Data Services Inc. 

04/2022 – 08/2022  
Istanbul, Turkey

- Is part of a team that works on **supply chain applications**.
- Worked on **data flow** with **EDI, XML, JSON** and **VDA**.
- **Mapping** between data files in **C++** and **PHP**, **XML to EDI, JSON to VDA, XML to JSON** etc.
- Used technologies: **NodeJS, C++, PHP**

### Data Science Intern

T.R. Presidential Human Resources Office 

11/2021 – 01/2022  
Istanbul, Turkey

- Was part of a team that worked on **data science applications** in the Human Resources department that develops **national projects**.
- Work on **data manipulation** and **data visualization** with **R language**.


### Software Development Intern

IBM 

08/2021 – 09/2021  
Istanbul, Turkey

- Was part of a team that worked on **IBM's BPM (Business Process Manager)**.
- Worked on a **customers service application** and **maintained the application**.
- Added **multi-language support**.
- Used technologies: **Java, Javascript**.

### Software Development Intern


Dogus Technology 

07/2021 – 08/2021  
Istanbul, Turkey

- Was part of a team that worked on an **automotive customer service application** in the finance department.
- Created a page in the **customer service application (With ASPX)**.
- Worked on a **UI for pairing pos devices** to the application.
- Used Technologies: **ASP.NET, MS-SQL**.

## EDUCATION

### Master of Science in Informatics

Technical University Of Munich 

Absent after 3th semester.

10/2022  
Munich, Germany

### Bachelor of Science in Computer Engineering

Istanbul Technical University 

09/2017 – 06/2022  
Istanbul, Turkey

- GPA: 3.16

# PROJECTS

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## burakssen.com

11/2023 – present

Personal portfolio website

- Developed a **portfolio page** for **showcasing my experiences** and **projects**.
- Implemented with **ReactJS**, **Vite**, **TailwindCSS**, **Shadcn/ui**

## QuitMe

05/2024 – present

A macOS utility application for terminating ui applications.

- Developed using **swift** and **swift ui**.
- **Custom delegate** for fetching running applications.
- **Launch on login** functionality
- **Ignore applications** list.
- **Custom shortcut** functionality.

## Kanban-Board

02/2024 – 03/2024

A simple Kanban-Board

- Developed a simple **Kanban Board** application.
- Implemented with **NextJS**, **Framer-Motion** and **Typescript**.

## Path Finding Visualiser

01/2024 – 02/2024

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

01/2024 – 02/2024

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

01/2024 – 02/2024


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

01/2024 – 02/2024




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

01/2024 – 01/2024

A sorting visualisation application written in C++.

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

## Modern War Simulator

09/2022 – 06/2022

A realistic tower defence type game

- Developed a **simulation game** which consist of a **terrain** and **units** that are placed on top of the terrain.
- Terrain generation developed **multi threaded** and it is generated **procedurally**.
- **PID algorithm** is implemented for the rockets to **move realistically**.
- Implemented with **Unity Game Engine**, **C#**, **C++**.

## Business Training Platform

09/2021 – 01/2022

*A training platform for companies.*

- Developed a **training platform** that provides a **professional environment for companies** to **educate their employees** and **track their improvements**.
- The development process **was managed with a team of 4 people** and under the guidance of **DefineX Consulting Technology**.
- Implemented with **ReactJS, NodeJS, Sequelize ORM** and **PostgreSQL**.
- Tested with **Jest** and **Supertest**.

## ITU-BE

09/2020 – 01/2021

*An online education platform*

- Developed an **education platform** that allows tutors to **publish their courses** in a professional environment with their students from ITU.
- Implemented with **Python Flask, PostgreSQL** and deployed to **Heroku**.

## ORGANIZATIONS

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### ITU ACM Student Chapter

09/2019 – 06/2021

*Member*

Istanbul, Turkey

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