# Burak Şen

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#### PROFESSIONAL EXPERIENCE

Asistant Student (Software Development)

12/2022 - 10/2023TUM School of Computation, Information and Technology *⊘* 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** 04/2022 - 08/2022 Map E-Commerce & Data Services Inc. *⊘* 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 ISON etc.

• Used technologies: NodeJS, C++, PHP

**Data Science Intern** 11/2021 - 01/2022 T.R. Presidential Human Resources Office & 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** 08/2021 - 09/2021 IRM ≥ 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 07/2021 - 08/2021 Istanbul, Turkey Dogus Technology ≥

• 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** 10/2022 Technical University Of Munich *⊘* Munich, Germany

Absent after 3th semester.

**Bachelor of Science in Computer Engineering** 09/2017 - 06/2022 Istanbul Technical University *⊘* Istanbul, Turkey

• GPA: 3.16

### **PROJECTS**

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** functionally.

Kanban-Board ∂

A simple Kanban-Board

• Developed a simple Kanban Board application.

• Implemented with NextJS, Framer-Motion and Typescript.

Path Finding Visualiser ∂

O1/2024 – O2/2024

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 ≥

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 algoritms: 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.

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## **ORGANIZATIONS**

ITU ACM Student Chapter  $\ \mathscr{D}$ 

Member

• Have been an instructor for the ITU ACM C course.

09/2019 – 06/2021 Istanbul, Turkey