BARIŞ ÇAKMAK

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Education

Bogazici University   **Sep. 2022 – Expected Jan. 2028**
B.Sc. in Computer Engineering — GPA: 3.96/4.00   *Istanbul, Turkey*

− Minor in **Management**, started Sep. 2025, expected graduation Jan. 2028.
− Research Assistant at **ALLab**, developing deep learning models to analyze patient data and study improvement in Alzheimer's Disease.

TED Antalya College   **Sep. 2018 – June 2022**
High School Diploma — Ranked 52nd among 3+ million students in university entrance exam   *Antalya, Turkey*

Experience

2025 Spring Algorithm Program - inzva   **Mar. 2025 – May 2025**
Participated in an advanced algorithms bootcamp

Financial Platform Services Intern - Token Financial Technologies   **Jul. 2025 – Aug. 2025**
Made an AI chatbot assistant that helps businesses keep track of their Z reports.

Projects

Token Z Assistant | *Typescript, React Native*   **Aug. 2025**

− Developed a mobile chatbot application in React Native to help businesses track their Z reports.
− Customized LLMs for domain-specific tasks and integrated them with databases through APIs.
− Implemented interactive charts for Z report visualization and enabled export to spreadsheets for sharing.

Market Delivery System | *Java, StdDraw*   **Apr. 2024**

− Developed a route optimization solution for the Traveling Salesman Problem using brute force initially.
− Implemented the Ant Colony Optimization algorithm to significantly improve performance.
− Visualized the ant paths and pheromone trails using the StdDraw graphics library.

Turkey Map Simulation | *Java, StdDraw*   **Apr. 2024**

− Built a mapping tool that calculates the shortest route between any two cities in Turkey.
− Allowed dynamic city and connection configuration via external text files.
− Used Dijkstra's algorithm for pathfinding and optimized the solution using efficient data structures.

Truck Delivery Simulation | *Java*   **Nov. 2024**

− Designed a logistics system to manage truck routing and delivery efficiently.
− Used AVL trees and queues for fast data management and scheduling.
− Implemented a multi-AVL forest architecture to optimize route assignment across multiple centers.

Instagram Feed | *Java*   **Nov. 2024**

− Created an Instagram-style feed system with user-following and like interactions.
− Managed data using HashMaps, LinkedLists, and Priority Queues.
− Implemented a MaxHeap-based feed generator for user-specific content.

Witcher Tracker | *C*   **Apr. 2025**

− Built a command-parsing system in C for simulating game logic and player interactions.
− Implemented a generic HashMap with separate chaining for dynamic command routing.
− Focused on advanced pointer arithmetic and manual memory handling in C.

Technical Skills and Certifications

Languages: English (C1), Python, Java, Javascript, Typescript, React Native, C, C++, Verilog, Prolog, Assembly

Technical Skills: Data Structures (Lists, Trees, Heaps, HashMaps), Algorithms (Sorting, Graphs, Dijkstra, MST), Object-Oriented Design, Competitive Programming, Git

Deep Learning: VAEs, RNNs, LSTMs, CNNs, Neural Networks, Logistic Regression, Data Preprocessing

Certifications: Coursera – Machine Learning Specialization (by Andrew Ng)