

Yağız Erdem

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EDUCATION

Dokuz Eylül University

Bachelor of Science in Computer Engineering

İzmir, Türkiye

2023 – 2027

Bahçeşehir College

High School Diploma

İstanbul, Türkiye

2018 – 2022

EXPERIENCE

TypeScript Developer Intern

Eliar Elektronik

Jun. 2026 – Aug. 2026

İstanbul, Türkiye

- Contributed production code to TypeScript-based applications in a large-scale monorepo environment, developing and maintaining frontend features with Vue.js, Nuxt.js, TypeScript, and Quasar. Contributed to backend API development and application logic within the Nuxt.js ecosystem, assisted with CI/CD workflows and automated build and deployment pipelines, and collaborated on debugging, feature implementation, and integration of new functionality into existing production applications.

Software Engineering Intern

Dokuz Eylül University

Jan. 2025 – Feb. 2025

İzmir, Türkiye

- Developed GeoExtractor, a CLI-based Ground Penetrating Radar (GPR) data processing application using C# and .NET Core. Implemented a parser for converting raw MALÅ RD3/RD7 radar data into structured JSON, integrated R Portable for executing signal processing algorithms, automated Base64-to-PNG conversion of processed outputs, and used SQLite for storing radar images and signal features. Implemented multi-process execution using System.Diagnostics.Process.

Software Engineering Intern

GameLab

Aug. 2025 – Sep. 2025

İstanbul, Türkiye

- Contributed to the Datuxa data analysis application using C++, developing CSV data-cleaning functionality to identify and process missing, invalid, and inconsistent values. Also contributed to desktop GUI development and improved the usability of existing interface components.

PROJECTS

YSharp | Java, Interpreter, Recursive Descent Parser, AST

Designed and implemented an interpreted scripting language from scratch in Java with dynamic typing and a C-like syntax. Built the complete interpreter pipeline, including a custom lexer, recursive-descent parser, AST, and tree-walk evaluator. Implemented first-class functions, prototype-based objects, arrays, hash maps, control flow, and exception handling.

Custom Regex Engine | Java, Compiler Design, NFA

Developed a regular expression engine from scratch in Java without relying on Java's built-in regex implementation. Designed a compiler pipeline that parses regular expressions and compiles them into a custom Non-Deterministic Finite Automaton (NFA), with pattern matching performed through NFA simulation without traditional backtracking.

Mano Assembly Compiler & Simulator | TypeScript, React, Computer Architecture

Built a complete Mano Assembly development toolchain for computer architecture education. Implemented the lexer, parser, and two-pass assembler from scratch in TypeScript, along with a micro-step CPU simulator for visualizing instruction execution and processor state changes.

TECHNICAL SKILLS

Languages: Java, TypeScript, JavaScript, C, C++, C#, Python, SQL, Bash

Frameworks & Technologies: Vue.js, Nuxt.js, React, Node.js, .Express.js, SQL, SQLite

Developer Tools: Git, Docker, GitHub Actions, Gradle, Maven, npm, IntelliJ IDEA, VS Code

Web & Mobile: REST APIs, Responsive Web Development, Mobile Development, Authentication, Database Integration, CI/CD