# Yağız Can Aslan

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#### **EDUCATION**

2020 - Expected 2024

## Bilkent University, Faculty of Engineering, Ankara, Turkey

B.S. in Computer Engineering

Total CGPA: 3.18 / 4.00, Highest CGPA: 3.70 / 4.00 (2022-2023 Fall)

#### **Courses Taken**

Algorithms and Programming I & II, Fundamental Structures of Computer Science I & II, Digital Design, Computer Organization, Programming Languages, Object-Oriented Software Engineering, Discrete Mathematics, Linear Algebra & Differential Equations, Probability & Statistics for Engineers, Operating Systems, Database Systems, Software Engineering Project Management, Algorithms, Computer Graphics, Automata Theory and Formal Languages, Application Lifecycle Management, Cloud Computing, Introduction to Machine Learning

2016 - 2020

## **METU Development Foundation High School, Ankara, Turkey**

Science / Mathematics Student

#### **EXPERIENCE**

Jan 2023 – Present

### Yapı Kredi Teknoloji

Software Engineer (Remote)

- Selected from amongst more than 300 applicants to work Part-Time while studying.
- Designed comprehensive search functionality for a project using ReactJS with TypeScript and Redux.
- Developed multiple endpoints for various Java Spring Boot APIs with Microservices architecture.
- Fixed multiple bugs based on logs reported to the ELK Stack and various other channels.
- Engineered 330+ unit tests (~11,000 lines) with more than 80% coverage for ~22,000 lines of code.
- Utilized VMware Horizon for connecting to the development machine.
- Took part in various organizational training programs.
- Participated in the team's Scrum workflow using Jira, Confluence and Bitbucket.

**Highlights:** Microservices, Domain Driven Design, H2, Hibernate, SAP PowerDesigner, Swagger, SQL, Java, JavaScript, ReactJS, TypeScript, Spring Boot, ELK Stack, Unit/Integration Testing, Mockito, JUnit, Jira, Git, Bitbucket, Confluence, Bamboo, IntelliJ IDEA, VS Code, VMware Horizon, Microsoft Teams, Scrum.

Jan 2021 - Aug 2023

## **Fiverr**

Freelance Developer (Remote)

- Designed and developed 20+ custom mods tailored to the specific needs of customers with combined 22,500+ unique subscribers and 76,500+ unique visitors in the Steam Workshop.
- Negotiated with customers to understand project requirements and to make recommendations.
- Automated large data interpretation and file generation for mods using Java.
- Designed, developed and debugged custom servers with plugins and maps for customers.
- Designed custom artwork and preview videos for projects using Paint.net, Camtasia Studio 8 and DaVinci Resolve 17.

Highlights: Java, Visual Studio Code, Paint.net, Camtasia Studio 8, DaVinci Resolve 17.

#### **MobileAction**

Frontend & Backend Engineer Intern (Ankara, Turkey)

- Engineered multiple Java Spring Boot API endpoints and utilized RabbitMQ for message queues.
- Developed integration and unit tests for backend code using JUnit and Mockito.
- Used Postman to test web crawling for API calls and other endpoints.
- Used VueJS, Tailwind and Ant Design to build a keyword generator and density calculator website.
- Built an internal bot for tracking and storing daily user data to solve a crucial bug using NodeJS.
- Took part in 2 **Scrum** sprints (daily meetings, sprint retrospective, sprint planning).

**Highlights:** Scrum, Gradle, Java, Spring Boot, PostgreSQL, RabbitMQ, Postman, Docker, NodeJS, Heroku, Webpack, VueJS, HTML, CSS, PostCSS, Tailwind, Ant Design, ESLint, GitHub, Jira, Confluence, Slack.

July 2022 - Aug 2022

#### **Vodafone**

DevOps Engineer Intern via Kafein Technology Solutions (Remote)

- Collaborated with the **Digital Finance DevOps** team behind Vodafone Pay.
- Attended daily **Scrum** meetings and observed the progress & methodologies of Vodafone Pay's team.
- Engineered a Java Spring Boot API and utilized Docker along with Oracle Database.
- Used ElasticSearch, Logstash and Kibana to parse, store and visualize data.
- Used Postman to test Java Spring Boot API and ELK Stack functionalities.

**Highlights:** Scrum, Maven, Java, Spring Boot, Oracle Database, Oracle SQL Developer, ElasticSearch, Logstash, Kibana, Postman, GitHub, Docker, Microservices, Jira.

#### **PROJECTS**

Oct 2023 - Present

## Linguist Al Language Teaching Mobile Application (Senior Project)

(Link: <a href="https://linguistai.app">https://linguistai.app</a>)

- Organized and tailored the **Scrum** workflow, **Jira** and **Confluence** to a team of 5 people.
- Conducted extensive requirement analysis based on the market trends and project domain.
- Corresponded with various industry experts in language teaching and artificial intelligence fields.
- Developed extensive UML Use Case, State, Activity and Class diagrams.
- Developed comprehensive Entity-Relationship Diagrams to represent the baseline of our database.
- Streamlined a comprehensive CI/CD pipeline by utilizing GitHub Actions.
- Engineering a complex, scalable and custom-built microservice architecture by using Java Spring Boot, Docker, JPA, Hibernate and MySQL as the core technologies.
- Designing a responsive User Interface using Figma, React Native and Typescript.
- Utilizing the API Gateway microservice design pattern for handling communication between the clients and our backend servers.

**Highlights:** Java Spring Boot, React Native, Typescript, UML Diagrams, Entity-Relationship Diagram, Requirement Analysis, Design Patterns, Docker, JPA, Hibernate, MySQL, API Gateway, Figma, Draw.io, Scrum, Jira, Confluence, GitHub, GitHub Actions.

Dec 2023

## Realistic 3D Rendering on Parametric Breather Surfaces (Course Project)

(Link: <a href="https://breather-cs465.web.app">https://breather-cs465.web.app</a>)

- Engineered a realistic 3D renderer for parametric breather surfaces using WebGL and JavaScript.
- Developed custom Phong and Gouraud shaders with Environment Mapping by utilizing GLSL.
- Streamlined a basic CI/CD pipeline by utilizing GitHub Actions for Firebase hosting.

**Highlights:** WebGL, GLSL, Vertex & Fragment Shaders, 3D Modeling, Phong, Gouraud, Environment Mapping, Parametric Surfaces, JavaScript, npm, Firebase, GitHub, GitHub Actions.

## **Octop 3D Animation Renderer** (Course Project)

(Link: <a href="https://octop-cs465.web.app">https://octop-cs465.web.app</a>)

- Developed a hierarchical model based 3D animation renderer using **WebGL** and **JavaScript**.
- Engineered custom Vertex and Fragment shaders for Phong shading by utilizing GLSL.
- Streamlined a basic CI/CD pipeline by utilizing GitHub Actions.
- Hosted the final version of the assignment using **Firebase**.

Highlights: WebGL, GLSL, Hierarchical 3D Modeling, JavaScript, npm, Firebase, GitHub, GitHub Actions.

Oct 2023

## **TriPaint Online 2D Paint Application** (Course Project)

(Link: https://tripaint-cs465.web.app)

- Engineered a comprehensive triangle-based 2D paint application using **WebGL** and **JavaScript**.
- Optimized basic Vertex and Fragment shaders by utilizing GLSL.
- Streamlined a basic CI/CD pipeline by utilizing GitHub Actions.
- Hosted the final version of the assignment using **Firebase**.

**Highlights:** WebGL, GLSL, JavaScript, npm, Firebase, GitHub, GitHub Actions.

Feb 2023 - June 2023

## **BilCommute Software Engineering Project Management** (Course Project)

- Prepared detailed **Project Charter** and **Project Management Plan** documents based on **PMI** guidelines.
- Identified organizational risks and determined appropriate response strategies.
- Detailed necessary work activities in a comprehensive Work Breakdown Structure.
- Decided on project deliverables, timeline, goals, and forecasted the project budget.
- Streamlined a Gantt Chart schedule based on the Work Breakdown Structure and project deliverables.

**Highlights:** Project Charter, Project Management Plan, PMI, Organizational Risks, Deliverables, Gantt Chart, Work Activities, Work Breakdown Structure, Jira, Confluence, Google Docs.

Jan 2023 - June 2023

## BilBilet Online Travel Manager (Course Project)

(Link: https://github.com/can-aslan/BilBilet)

- Organized and tailored the Scrum workflow, Jira and Confluence to a team of 5 people.
- Conducted **extensive requirement analysis** based on the project prompt and domain.
- Developed a detailed Entity-Relationship Diagram to form the baseline of our database representation.
- Engineered a **comprehensive Java Spring Boot** architecture with 80+ endpoints.
- Formulated multiple complex SQL queries based on project functionality & requirements.
- Designed and modified multiple UI mockups using Figma.
- Developed multiple screens based on Figma using TypeScript, ReactJS and Mantine.
- Streamlined user experience by optimizing and polishing UI interactions.

**Highlights:** Java, JavaScript, ReactJS, TypeScript, Swagger, Java Spring Boot, SQL, MySQL, Figma, Requirement Analysis, Entity-Relationship Diagram, Relational Algebra, Jira, Confluence, GitHub, Draw.io.

Oct 2022 - Jan 2023

## **Erasmus Application Manager** (Course Project)

(Link: https://github.com/can-aslan/Erasmus-Application-Manager)

- Introduced, explained and organized the **Scrum** workflow, **Jira** and **Confluence** to a team of 5 people.
- Conducted **extensive requirement analysis**, investigated **design patterns** and engineered numerous **UML Diagrams** using **Visual Paradigm** for designing the project structure.
- Implemented a comprehensive backend API using **Java Spring Boot** and **PostgreSQL**.
- Assisted the development of our website with TypeScript, ReactJS and Mantine.

**Highlights:** UML Diagrams, Visual Paradigm, Java, Spring Boot, TypeScript, ReactJS, Mantine, PostgreSQL, GitHub, Scrum, Jira, Confluence, Slack, Requirement Analysis, Design Patterns, Figma.

## **IoT Programming Language** (Course Project)

(Link: https://github.com/can-aslan/CS315-Key-Programming-Language)

- Designed a context free grammar using the Backus-Naur Form (BNF) Notation for a programming language for IoT devices with a team of 3 people.
- Implemented a lexical analyzer using **Lex** and a parser using **Yacc**.
- Tested the lexical analyzer and the parser in a Linux environment using FileZilla and SSH.
- Utilized **Emacs** in the **Linux** environment for editing test files.

Highlights: Lex, Yacc, GitHub, Linux, FileZilla, SSH, Emacs.

June 2022 - July 2022

## **CoordinatesOnDeath Minecraft Plugin** (Hobby Project)

(Link: https://www.curseforge.com/minecraft/bukkit-plugins/coordinatesondeath)

- Developed a Minecraft Plugin for the Bukkit/Spigot and Paper platforms based on player needs with Java.
- Used the **Spigot API** to automatically check if the local version of the plugin is up-to-date.
- Achieved **500+ downloads** within the first 2 months of the release (**~800 downloads** as of August 2023).

**Highlights:** Java, SpigotAPI.

June 2022 – Aug 2022

## **Lightsaber Discord Bot** (Hobby Project)

(Link: https://github.com/can-aslan/LightsaberBot-Reborn)

- Designed a custom Discord bot using NodeJS, DiscordJS and npm for personal use.
- Hosted 24/7 on Replit and version-controlled using Git.
- Used currency-converter-It library to access real-time currency exchange rates.
- Used vatsim-data-handler library to access real-time flight information on the VATSIM network.

**Highlights:** NodeJS, Replit, GitHub.

Dec 2021

## **Programmable Processor** (Course Project)

- Designed and developed a simple 12-bit programmable processor in **SystemVerilog** to be used in the **Basys 3 Artix-7 FPGA** for a course project.
- Implemented load, store, add constant, subtract and jump instructions to the programmable processor.
- Designed and wrote testbenches for the programmable processor in SystemVerilog.

**Highlights:** SystemVerilog, Xilinx Vivado.

Feb - May 2021

## **QuestYard Educative Multiplayer Game** (Course Project)

(Link: https://quest-yard.herokuapp.com/)

- Designed and developed an educative multiplayer desktop game with a team of five people using **Java** and **MVC patterns**.
- Designed and optimized custom UI elements for the desktop application and the website using **Paint.net**, **JavaFX**, **HTML** and **CSS**.
- Edited & implemented custom sound effects using Audacity and Camtasia Studio 8.
- Developed the networking & multiplayer aspect of the project using Java Sockets and port forwarding.
- Managed offline databases developed with **SQLite** to store and manage offline player profiles, achievements, questions & fun facts.
- Assisted remote MySQL database development for storing questions, fun facts, online player profiles and achievements.

**Highlights:** Java, JavaFX, Java Sockets, SQLite, MySQL, HTML, CSS, Visual Studio Code, Paint.net, Camtasia Studio 8, Audacity.

## **Platformer Game Prototype** (Hobby Project)

(Link: https://github.com/can-aslan/Jumper)

- Developed a singleplayer and local multiplayer platformer game prototype with simple AI opponents and mouse-controlled weapons in GameMaker Studio 2 Desktop.
- Animated and created player, opponent, weapon and level sprites using **Paint.net**.
- Created sound effects using SFXR, BFXR and Audacity.

Highlights: GameMaker Studio 2 Desktop, Paint.net, SFXR, BFXR, Audacity.

#### SKILLS

## **Programming Languages & Technologies**

- Java, C++, C, JavaScript, Python, TypeScript, C#, SQL, NodeJS, VueJS, ReactJS, MATLAB, MIPS Assembly, SystemVerilog, HTML, CSS, Git, GitHub Actions
- Java Spring Boot, JPA, Hibernate, Mockito, JUnit, Java Swing, JavaFX, Java Sockets, Python Flask
- Redux, Ant Design, Mantine, Tailwind
- Oracle Database, SQLite, MySQL, H2, Oracle SQL Developer, PostgreSQL
- ElasticSearch, Logstash, Kibana, RabbitMQ
- Docker, Postman, FileZilla, OpenSSH, VMware Horizon
- Emacs, Lex, Yacc
- Linux (Ubuntu)
- Firebase, Replit
- WebGL, GLSL

#### Software

- Atlassian: Jira, Confluence, BitBucket, Bamboo
- IDEs and Simulators: Visual Studio Code, IntelliJ IDEA, WebStorm, DataGrip, MARS MIPS Simulator, Xilinx Vivado
- Game Engines: Unity Game Engine, GameMaker Studio 2 Desktop
- Sound Design: Audacity, SFXR, BFXR, CapCut, DaVinci Resolve 17, Camtasia Studio 8
- Video Editing: CapCut, DaVinci Resolve 17, Camtasia Studio 8
- Image Editing: Paint.net, GIMP 2
- Microsoft Office: Word, PowerPoint, Excel
- Modelling Tools & UML Diagrams: SAP PowerDesigner, Visual Paradigm, Draw.io

#### Languages

• Turkish (Native), English (Bilingual/CEFR C2), Spanish (Beginner), Italian (Beginner)

#### ACHIEVEMENTS & CERTIFICATES

#### **Programming**

- Skillsoft, <u>Java Spring Cloud</u>: <u>Introduction to Microservices</u>, 05 Dec 2023
- Skillsoft, <u>Clean Coding Techniques: Introduction to SOLID</u>, 07 Aug 2023
- Skillsoft, <u>Assessing Organizational Risks</u>, 17 May 2023
- Skillsoft, Introduction to UI/UX, 28 Mar 2023
- HackerRank, JavaScript (Intermediate) Certificate, 06 Sep 2022
- LinkedIn, NodeJS Skill Assessment (Top 30% of 388 Thousand participants), 19 Aug 2022
- HackerRank, JavaScript (Basic) Certificate, 13 June 2022
- HackerRank, <u>Java (Basic) Certificate</u>, 05 June 2022
- LinkedIn, JavaScript Skill Assessment (Top 15% of 2.2 Million participants), 05 June 2022
- LinkedIn, C Skill Assessment (Top 30% of 1.6 Million participants), 01 June 2022
- LinkedIn, C++ Skill Assessment (Top 30% of 1.4 Million participants), 09 Feb 2022

#### Academic

- IELTS Academic 8.5/9.0, Dec 2023
- Bilkent University High Honor Certificates (2), 2022-2023 Fall & 2022-2023 Spring
- Bilkent University Honor Certificates (3), 2020-2021 Fall, 2021-2022 Fall & 2023-2024 Fall
- Bilkent Proficiency in Academic English Exam (PAE-II B), Grade: 141.25/150, 08 Sep 2020
- Placed 5880<sup>th</sup> among 2.3 Million participants in the National University Entrance Exam in the Science/Mathematics category, *Aug 2020*
- Placed 840<sup>th</sup> among 130 Thousand participants in the National University Entrance Exam in the English Language category, Aug 2020

### **Sports**

- Turkish Chess Federation, Chess License, from Jan 2010 to Jan 2018
- Selected to the Basketball team of İklim College Summer School, 2012
- Achieved green belt in Karate (Demir Çelik Spor Kulübü, Ankara), 2010

#### Other

- Apple, Apple Search Ads Certificate, 23 Aug 2022
- Fiverr Skill Tests, English Language, 14 Apr 2022
- Fiverr Skill Tests, Fiverr English Test, 14 Apr 2022
- Fiverr Skill Tests, Customer Service, 04 July 2021
- Fiverr Skill Tests, Social Media Marketing, 12 Jan 2021
- Turkish Virtual Airlines, Senior First Officer, 25 Jan 2023
- Turkish Virtual Airlines, First Officer Pilot Certificate (F/O Checkride: 98/100), 27 Oct 2019

#### **EXTRACURRICULAR ACTIVITIES**

- Founder and President of Bilkent Virtual Aviation Club, since May 2023;
  - o Led 11 founding members to form the first ever university-level virtual aviation club in Turkey.
  - o Led the formation and operations of the "Engineering", "Organization", "Design" and "Social Media & Marketing" teams with multiple members and differing agendas.
  - o Coordinated with school officials for official documents and event marketing.
  - o Coordinated the preparation and distribution of event posters for marketing purposes.
  - o Oversaw the election process for the executive board and the first general assembly of the club.
  - o Handled communication between the executive board and the club members.
- Core Team Member of Google Developer Students Club Bilkent University since Aug 2023
- Member of Google Developer Students Club Bilkent University since Jan 2023
- Attended Bilkent University Squash courses, Sep 2022-Jan 2023
- Took part in METU High School (Ankara) Graduate's Panel to aid senior students with preparing for the University Entrance Exam, Feb 2021
- Welcomed, hosted and assisted attendee professionals from various fields for the METU High School (Ankara) Career Promotion Fair, Apr 2019
- Participated in MCMUN'17 as a member of the Press team (preparing daily newspapers, interviewing participants and organizers), Dec 2017
- Organized, coordinated and took part in 3 fundraising fairs for METU High School (Ankara) History Club between 2017-2019
- Took part in a ~7 day training camp in Space Camp Turkey (İzmir), Jul 2014
- Took part in a ~7 day training camp in Space Camp Turkey (İzmir) and introduced & presented the camp to
  my school for the organization of recurring summer trips, Aug 2013
- Volunteer for TEMA (Turkish Foundation for Combating Soil Erosion) since Jan 2011

#### **HOBBIES & INTERESTS**

• Space, aviation, astronomy, exploring nature, everything related to technology, football, squash, game design, attention to detail, content creation, building & repairing computers.