Yağız Can Aslan

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EDUCATION

Bilkent University, Faculty of Engineering, Ankara, Turkey

2020 - 2024

B.S. in Computer Engineering

Total CGPA: 3.22 / 4.00, Highest GPA: 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

METU Development Foundation High School, Ankara, Turkey

2016 - 2020

Science / Mathematics Student

EXPERIENCE

Yapı Kredi Teknoloji

Jan 2023 - Present

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 410+ unit tests (~14,000 lines) with more than 80% coverage for 24,000+ lines of code.
- Supported deployment of production code to German subsidiary, utilizing Helm, Kubernetes and Redis.
- 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, SonarQube, SonarLint, Redis, Kubernetes, Helm, IntelliJ IDEA, VS Code, VMware Horizon, Microsoft Teams, Scrum.

Fiverr

Jan 2021 - Aug 2023

Freelance Developer (Remote)

- Designed and developed 20+ custom mods tailored to the specific needs of customers with combined
 32,500+ unique subscribers and 88,500+ 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-Based Language Learning Mobile Application (Senior Project) (Link: https://linguistai.app)

- Organized and tailored the **Scrum** workflow, **Jira** and **Confluence** to a team of 5 people as **Scrummaster**.
- 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.
- Engineered a complex, scalable and custom-built microservice architecture by using Java Spring Boot, Docker, JPA, Hibernate, Python, Django and MySQL as the core technologies.
- Designed a responsive mobile User Interface using Figma, React Native, Typescript and Expo.
- Utilized the API Gateway microservice design pattern for handling client-backend communication.
- Engineered scalable, cost-effective and performant AWS Cloud Architecture, utilizing services such as but not limited to Amazon API Gateway, AWS Lambda, Amazon S3 and Amazon DynamoDB.
- Utilized OpenAl API, Gemini API and prompt engineering for developing Al-based core features.
- Organized specialized user testing sessions and focus groups with 50+ participants for user feedback.
- Prepared **comprehensive presentations** and presented the project at several competitions and events.
- Corresponded with various companies, investors and leaders in the industry regarding future possibilities.
- Launched closed beta testing for 100+ users via Google Play Store for Android and Testflight for iOS.

Highlights: AWS Cloud, Java Spring Boot, React Native, Typescript, UML Diagrams, Entity-Relationship Diagram, Requirement Analysis, Design Patterns, Docker, JPA, Hibernate, MySQL, Testflight, OpenAl API, Gemini API, Prompt Engineering, API Gateway, Figma, Expo, Draw.io, Scrum, Jira, Confluence, GitHub, GitHub Actions, Amazon API Gateway, Lambda, S3, Polly, Transcribe, Amazon SNS, DynamoDB, Transcribe, Amazon IAM, Amazon VPC, CloudWatch.

CommitSniffer LLM-powered Code Review Bot (Course Project)

(Link: https://github.com/CommitSniffer/Commit-Sniffer)

- Tailored the Kanban workflow for a team of 4 people via Jira and Confluence.
- Conducted **extensive requirement analysis** based on the assignment guidelines and competitor features.
- Engineered a custom **GitHub bot** to automatically detect code smells and offer suggestions by using **Docker**, **Probot**, **JavaScript**.
- Utilized comprehensive Regex patterns for static code analysis to detect certain code smells.
- Utilized Gemini API and prompt engineering for detecting numerous code smells and offering fixes.
- Utilized GitHub API for obtaining relevant information regarding user repositories.
- Presented the project in front of a live audience of 50+ people, with Google Slides.

Highlights: Kanban, JavaScript, Probot, Docker, Confluence, GitHub, Regex, GitHub API, Gemini API, Google Slides, Requirement Analysis, Prompt Engineering.

Dec 2023

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

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

- 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.

Nov 2023

Octop 3D Animation Renderer (Course Project)

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

- 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.

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.

Oct 2022

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 (1,000+ downloads as of June 2024).

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.

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.

Nov 2019 - July 2020

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, React Native, Expo, 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 & Tools

- Atlassian: Jira, Confluence, BitBucket, Bamboo
- IDEs and Simulators: Visual Studio Code, IntelliJ IDEA, WebStorm, DataGrip, MARS MIPS Simulator, Xilinx Vivado, Android Studio
- 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

Amazon Web Services

 API Gateway, Lambda, EC2, Fargate, ECR, ECS, EKS, S3, RDS, EBS, EFS, Polly, Transcribe, SNS, DynamoDB, Transcribe, CodePipeline, CodeBuild, CodeDeploy, IAM, Cognito, VPC, Boto3, ELB, Athena, EventBridge, CloudFront, CloudFormation, CloudTrail, CloudWatch

Languages

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

ACHIEVEMENTS & CERTIFICATES

Programming

- Skillsoft, Java Spring Cloud: Introduction to Microservices, 05 Dec 2023
- Skillsoft, <u>Clean Coding Techniques: Introduction to SOLID</u>, 07 Aug 2023
- Skillsoft, Assessing Organizational Risks, 17 May 2023
- Skillsoft, Introduction to UI/UX, 28 Mar 2023
- HackerRank, <u>JavaScript (Intermediate) Certificate</u>, 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, <u>JavaScript Skill Assessment</u> (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

- Bilkent University CS Fair "Team Worker" Award, given to the student who is the best overall teammate, demonstrating great organization and coordination skills, as well as technical effectiveness, 17 May 2024
- 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 5880th among 2.3 Million participants in the National University Entrance Exam in the Science/Mathematics category, Aug 2020
- Placed 840th among 130 Thousand participants in the National University Entrance Exam in the English Language category, Aug 2020
- 90+ Academic Achievement Awards by METU Middle & High School, 2012-2020
- 10+ Progress & Effort Awards by METU Middle & High School, 2012-2020
- 5+ Event Participation Awards by METU Middle & High School, 2012-2020
- 4+ Behavior Awards by METU Middle & High School, 2012-2020

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, May 2023-June 2024;
 - 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, Aug 2023-June 2024
- Member of Google Developer Students Club Bilkent University, Jan 2023-June 2024
- 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.