





Aybars Yazici

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Gender: Male **Date of birth:** 10/10/1998 **Nationality:** Turkish

ABOUT MYSELF

For a more interactive way to learn about me, please check my portfolio website.

WORK EXPERIENCE

EPFL

City: Lausanne | **Country:** Switzerland

[03/2025 – Current] **University research assistant**

Research assistantship at ML4ED laboratory at EPFL. Worked on Scholé AI project, supervised student projects on:

1. RLHF
2. RAG + Adaptive Learning
3. Automated Knowledge Graph Extraction

The work also included web development for the dashboard of the application. Utilized ReactJS/ Storybook/MantineUI for frontend and GCP(GKE), Django Python, Docker&Kubernetes for Backend.

Visium

City: Lausanne | **Country:** Switzerland

[02/2024 – 08/2024] **Machine Learning Engineer**

Worked as a Junior ML Engineer to create AI models to suit client needs.

- Some implemented/worked on concepts:
- Implicit Deep Learning Recommender systems
- Document line item OCR + classification
- Retrieval Augmented Generation

Utilized PyTorch, DVC, Docker along with Google Cloud(Cloud run apps, Firestore DB) for the backend of the ML pipeline and Firebase, ReactJS for the frontend.

EPFL

Country: Switzerland

[09/2023 – 01/2025] **Graduate teaching assistant**

Worked as a graduate level teaching assistant(Assistant étudiant) for Machine Learning(CS-433) [09/2023-01/2024] and TCP/IP(COM-407)[09/2024-01/2025] course at EPFL.

- Prepared weekly exercises.
- Organized and graded projects.
- Helped students during exercise sessions

Spiky AI

[09/2020 – 11/2022] **Web developer**

Spearheaded full-stack development for critical company products, encompassing dynamic admin panels and user-facing product websites. Proficiently leveraged a diverse technology stack including frontend frameworks (Vue.js, Nuxt.js, React.js) and backend technologies (Django/Python, Spring Boot/Java). Architected and deployed backend services utilizing cloud platforms (GCP and AWS), incorporating containerization with Docker and orchestration with Kubernetes for scalable and resilient infrastructure. Led the initiative to design, build, and document a comprehensive custom UI component library using Tailwind CSS, Storybook, and SCSS, significantly enhancing UI

consistency and accelerating development workflows. Operated effectively within a fast-paced Agile (Scrum/Kanban) environment, contributing to all phases from UI/UX design and requirements gathering to API integration, robust testing, and CI/CD pipeline management for deployments.

Evet Tech

Country: Turkey

[12/2021 – 06/2022] **Software Developer**

- Engineered dynamic web applications using ASP.NET MVC, transitioning frontend development from legacy jQuery/Razor to modern React.js for new features.
- Developed, deployed, and maintained serverless Azure Functions via the Microsoft Azure portal to support critical backend processes and integrations.
- Systematically monitored, diagnosed, and optimized a large-scale .NET application and its MS SQL database, enhancing performance and reliability.

Vaysis

Country: Turkey

[06/2021 – 11/2021] **Web developer**

Engineered and delivered high-quality, full-stack web solutions, including interactive dashboards, engaging landing pages, and robust commercial websites. Mastered frontend development with React.js and TypeScript, creating responsive and intuitive user interfaces. Architected and implemented scalable backend systems using Spring Boot (Java). Leveraged Nx monorepo project structure to optimize development workflows, improve code sharing, and ensure maintainability across complex applications.

Sabanci University

Country: Turkey

Link https://drive.google.com/file/d/13_lefu37kY42-o-eLNZ-UmRIX3gvvVXp/view?usp=sharing

[09/2018 – 06/2020] **University teaching assistant**

Worked as an Undergraduate level teaching assistant for many courses throughout my education:

Undergraduate Level Teaching Assistant for Data Structures Course(CS 300)[09.2019 - 06.2020]

- Prepared and graded homework.
- Held office hours, recitations, conducted review and discussion sessions weekly to help students with concepts they were struggling with.

Undergraduate Level Teaching Assistant for Circuits II Course(EE 202) [01.2020 - 06.2020]

- Worked as a supervisor in lab hours to help students implement topics learned in lectures.
- Graded and prepared lab assignments and homework.
- Held office hours and discussion sessions to help students with assignments.

Undergraduate Level Teaching Assistant for Calculus II Course [09.2018 - 01.2019]

- Held recitations to solve example questions and re-explain topics went over in the lectures.
- Graded homework and quizzes.
- Proctored exams.

PI Works

Country: Turkey

[06/2020 – 09/2020] **Software developer**

Summer Internship,

- Worked on projects involving both the telecommunications layer and software layer.
- Focused on database management, audio streaming, evaluating wireless network performance, and identifying ways to improve upon it.
- Gained insight into the common issues faced by telecommunication systems and their solutions.

EDUCATION AND TRAINING

[09/2022 – 02/2025]

MSc in Computer Science

EPFL <https://www.epfl.ch/en/>

Address: Rte Cantonale, , 1015 , Lausanne, Switzerland | | **Final grade:** GPA 5.75/6.0

[17/09/2017 – 04/02/2022]

Computer Engineer & Electronics Engineer Double major

Sabanci University <https://www.sabanciuniv.edu/en>

Address: Orta, Üniversite Cd., Tuzla/İstanbul, 34956, Istanbul, Turkey | | **Final grade:** 3.84/4.00

LANGUAGE SKILLS

Mother tongue(s): Turkish

Other language(s):

English

LISTENING C2 READING C2 WRITING C2

SPOKEN PRODUCTION C2 SPOKEN INTERACTION C2

French

LISTENING B2 READING B2 WRITING B2

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user

PROJECTS

[09/2024 – 01/2025]

Peace Mediator Assistant

Thesis done at the [LSIR lab at EPFL](#).

Develop a tool that leverages the capabilities of Large Language Models (LLMs) to extract, analyze, and summarize important information from news articles. It focuses on identifying the main political issues, the stakeholders involved in these conflicts, and their respective positions, sentiments, emotions, and stances. The primary purpose is to assist mediators in conflict analysis and the settlement of disputes by providing them with detailed insights derived from news sources.

[09/2024 – 01/2025]

Explanations in Example-based Learning

How can we best support learners in self-explaining in example-based learning?

A large scale, real class room 2x2 study design with over 200 participants.

RQ1: What is the effect of self-explaining the elements of a text in example-based learning?

RQ2: What is the effect of actively highlighting the elements of a text in example-based learning?

Link: <https://aybarsyazici.github.io/explanation-eval/>

[09/2023 – 01/2024]

Investigating the Effectiveness of AI-Generated Examples for Learning

Publication at CHI 2024.

Research Project at [ML for Education Lab. at EPFL](#). The project aims to investigate the potential of LLM for personalizing educational content. Research question(s): (1) Can we use LLM to generate domain and user specific examples and explanations/advice? (2) How do these examples compare to peer/expert generated examples? (3) Is it possible for LLM to learn what the common mistakes and patterns for a specific domain are?

Link: <https://dl.acm.org/doi/10.1145/3613905.3650900>

[10/2022 – 01/2023]

Brain Fingerprinting and Task Decoding via Graph Structure Learning

A project that aims to investigate the use of graph structure learning (GSL) methods to construct alternative graphs to so called functional connectivity (FC) graphs where a brain graph is derived based on pairwise functional correlation between activity in brain regions. Conducted as a course project for ML course at EPFL under the supervision of Medical Image processing Lab.

Link: <https://drive.google.com/file/d/1sqEazi1b93ltYfkUFU4iQcDDFkNtxzZX/view?usp=sharing>

[09/2023 – 12/2023] **Information systems course projects**

Group course projects conducted at EPFL for the [Distributed Information Systems course](#).

Of the 3 projects(each one taking 4 weeks), our group achieved #1 ranking for 2 and #2 ranking for one of them.

Here are the topics of the 3 projects:

Project 1: Text Retrieval & top-k re-ranking

Project 2: Recommender systems | Students are expected to develop a recommender system that is able to predict the rating of a user for a given movie.

Project 3: Named Entity Disambiguation | Named Entity Disambiguation (NED) is the task of mapping entities, such as persons, locations, or companies, from a given text document to corresponding unique entities in a target Knowledge Base (KB).

The google drive link contains our report for all 3 projects

Link: https://drive.google.com/file/d/1NCrKXT1pjPFRcj7uT_xZeKkoQaL_oatr/view?usp=sharing

[02/2023 – 06/2023] **Time series student performance prediction**

I along with 2 other team members, worked with data provided by a start up (lernnavi), to come up with, train and test several machine learning algorithms to draw insights from the raw data. Such as: cluster students using the platform into groups and try to predict their performances of week N, using the data available from weeks 1...N-1

Link: <https://github.com/ML4BD/final-submission-uclumasa>

[03/2023 – 06/2023] **Satellite Visualizer**

A website that visualizes the satellites orbiting the Earth, done as a project for [Data Visualization course at EPFL](#).

Link: <https://com-480-data-visualization.github.io/project-2023-astro-vizards/>

[09/2021 – 01/2022] **Digital Game Library Database Application**

Developed a game library database application utilizing ReactJS, along with express for setting up endpoints for the frontend application. Utilized ER Model for designing, concepts of 3rd Normal form for refining and MySQL for implementing the database.

Link: <https://github.com/aybarsyazici/CS306-Project>

[02/2021 – 08/2021] **Writing & Testing iXRD on-board software & the interface software**

Aim: To write the codes to operate iXRD in orbit with the MSP 430 microprocessor on board. To conduct tests with an interface software running on PC written in C#. (Program for undergraduate research Sabanci Uni.)

Link: https://docs.google.com/document/d/1lvoBjzJpm4n5pZDJBBvGrlo8rhvJV2eyQU_7OKH1pjc/edit?usp=sharing

[09/2020 – 06/2021] **Image segmentation for graphical user interfaces**

Graduation project:

Develop an image segmentation approach for partitioning the digital images of screens into multiple segments, each of which represents a GUI object, with the goal of automating the process of interface verification of smart TVs.

HONOURS AND AWARDS

[12/2017] **High honor certificate** Awarding institution: Sabanci University

High honor certificate awarded for academic success during a semester in Sabanci University.

Received one of these in each of the following semesters:

12/2017 - 06/2018 - 12/2018 - 06/2019 - 12/2019 - 06/2020 - 01/2022