EDIN GUSO
Lausanne, Switzerland (Open to relocation)
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SKILLS

Programming Languages: Python *(Advanced)*, C++ *(Advanced)*, C *(Intermediate)*, Java *(Intermediate)*, C# *(Intermediate)*, MATLAB *(Intermediate)*, JavaScript *(Beginner)*

Technical Skills: MySQL, Elasticsearch, MongoDB, LLMs, Prompt Engineering, Agile, Git

Language: Bosnian-Croatian *(Native*), Turkish *(Native)*, English *(TOEFL: 116/120)*, French *(A1)*

EDUCATION

EPFL – Lausanne, Switzerland September 2021 - September 2024 (Expected)

M.Sc. in Computer Science, Specialization in Computer Science Theory

- Cumulative GPA: **5.53/6.00**
- Relevant courses: Distributed Algorithms, Concurrent Algorithms, Advanced Algorithms, TCP/IP Networking, Applied Data Analysis, Machine Learning, Computer Vision

SABANCI UNIVERSITY - Istanbul, Turkey September 2016 - June 2021

B.Sc. in Mechatronics Engineering and B.Sc. in Computer Science

- Cumulative GPA: **3.96/4.00**

WORK EXPERIENCE

Logmind - Lausanne, Switzerland February 2024 - Ongoing

Data Scientist (Master Thesis)

- Maintained and enhanced a modular **Python** package for efficient LLM interaction.
- Designed a pipeline of LLMs and embedding models.
- Improved the capabilities of the log search engine, allowing users to combine the strengths of traditional querying and semantic search.

Logmind - Lausanne, Switzerland August 2023 - February 2024

Junior Data Scientist

- Developed a modular **Python** package for efficient LLM interaction, facilitating rapid app development.
- Created Natural Language to **SQL** and Natural Language to **Elasticsearch** translators, enabling users to query logs using natural language.
- Explained log patterns in natural language to make them easy to understand for all users.

EPFL - Lausanne, Switzerland September 2022 - January 2023

Student Assistant (TCP/IP Networking)

- Beta tested the labs to ensure no bugs or ambiguities were present.
- Assisted students with their weekly lab assignments and answered their Virtual Box, Wireshark, and Networking related questions.

UNIVERSITY OF TEXAS AT AUSTIN - Austin, TX, USA July 2019 - August 2019

Summer Intern in Autonomous Systems Group

- Implemented a Graphical User Interface (GUI) using Qt Creator (in **C++**) for automated mission planning and controller synthesis.

SELECTED PROJECTS

EPFL - Lausanne, Switzerland February 2023 - July 2023

Semester Project: Efficient Comp. of Worst-Case Delay-Bounds for Time-Sensitive Networks [LINK]
Supervisor: Prof. Le Boudec

- Reviewed the literature on computing worst-case delay-bounds in time-sensitive networks.
- Developed a heuristic algorithm for selecting cuts in the PLP algorithm in **Python**.
- Demonstrated the algorithm's effectiveness in approximating optimal worst-case delay bounds.

EPFL - Lausanne, Switzerland September 2022 - December 2022
Distributed Algorithms Term Project [LINK]

- Implemented perfect links, uniform reliable broadcast and lattice agreement using UDP in **Java**.
- Achieved 3M+ message throughput on perfect links level.

EPFL - Lausanne, Switzerland September 2022 - December 2022
Concurrent Algorithms Term Project [LINK]

- Implemented software transactional memory using the TL2 algorithm in **C**.
- Achieved x2.918 speed up compared to the reference solution using a single global lock.

EPFL - Lausanne, Switzerland February 2022 - July 2022
Semester Project: A Sublinear Tolerant Max Cut Tester for Bounded Degree Expander Graphs [LINK]
Supervisor: Prof. Michael Kapralov

- Reviewed the literature on sublinear testers for bounded degree graphs.
- Extended a previously published bipartiteness tester to a tolerant max cut tester.
- Analysed the algorithm's time complexity and proved its correctness.

SABANCI UNIVERSITY - Istanbul, Turkey September 2020 - December 2020
Computer Networks Term Project [LINK]

- Developed a file transfer client and server application in **C#**.
- Used Socket and Threading libraries in **C#** and the TCP/IP protocol.

SABANCI UNIVERSITY - Istanbul, Turkey October 2019 - June 2020
Bachelor Thesis: Application of autoencoder neural networks for CFD Problems [LINK]
Supervisor: Prof. Serhat Yesilyurt

- Reviewed the literature on machine learning applications related to CFD problems.
- Developed a machine learning model for regression and image reconstruction using the autoencoder and deep learning libraries in **MATLAB**.

HONORS AND AWARDS

SABANCI UNIVERSITY - Istanbul, Turkey

- Dean's High Honor List
- Awarded with 50% scholarship for achievement on SAT exam
- Awarded with "Sakip Sabanci 100% Encouragement Scholarship"

VOLUNTEER WORK

SABANCI UNIVERSITY - Istanbul, Turkey *September 2016 - December 2016*

CIP (Civil Involvement Project)

- Visited a rest home every week and communicated with elders.
- Established meaningful relationships through the conservations we had and the games we played.