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: SQL, Elasticsearch, MongoDB, LLMs, Prompt Engineering, RAG, Agile, Git

Language: Bosnian-Croatian *(Native)*, Turkish *(Native)*, English *(TOEFL: 116/120)*, French *(A2)*

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**
- Thesis: Application of autoencoder neural networks for CFD Problems (Supervisor: Prof. Serhat Yesilyurt)

WORK EXPERIENCE

Logmind - Lausanne, Switzerland   February 2024 - Ongoing
Data Scientist (Master Thesis)
- Designed a "SmartSearch" pipeline of LLMs and embedding models. This pipeline combines the strengths of traditional querying and semantic search empowering users to search their log data with increased detail, while offering a simple and intuitive natural language interface.
- Maintained a modular **Python** package that simplifies LLM-powered app development.

Logmind - Lausanne, Switzerland   August 2023 - February 2024
Junior Data Scientist
- Implemented Natural Language to SQL and Natural Language to Elasticsearch translators, enabling users to query logs using natural language.
- Implemented an app that generates explanations and recommendations for logs, decreasing the time required to troubleshoot IT issues.
- Developed a modular **Python** package that simplifies LLM-powered app development.

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.
- Designed a heuristic algorithm for selecting cuts in the PLP algorithm and implemented it 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: 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.

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.

ADDITIONAL EXPERIENCE

Team Leader, Competitive Gaming (Squad)   *October 2020 **-** Ongoing*

- Leading a team of 60+ members, demonstrating strong leadership, communication, and organizational skills. Managing and moderating the team Discord server with 650+ members.
- Organizing regular practice matches and training sessions. Communicating with other team representatives and tournament organizers.