

SERHAN YILMAZ

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EDUCATION

Sabanci University

Bachelor of Science in Computer Science

Istanbul, Turkey

Sep 2021 - Jun 2025

- cGPA: **3.7/4.0**
- Ranked **top 0.02%** among 2.9 million students in the National University Entrance Exam.

WORK/RESEARCH EXPERIENCE

kAi Sabanci

Club Founder/President

Istanbul, Turkey

Mar 2023 - Present

- **Founded kAi Sabanci**, the AI and ML club of the university, as the **Lead and President** of the club.
- **Led every leg of the club**, including its formation, structuring and organization, as well as project management, securing sponsorships, and event organizations.
- Got kAi Sabanci to become **the only member of the NVIDIA Student Network in Europe** through personal perseverance, and extensive professor endorsements.
- Cultivated a **strong partnership with NVIDIA**, including significant **contributions to NVIDIA Student Network program**. Received both content & material support from NVIDIA, including Jetsons.
- **Selected for NVIDIA Student Spotlight series** for outstanding perseverance, dedication and achievement by NVIDIA.

École Polytechnique Fédérale de Lausanne

Summer Intern

Lausanne, Switzerland

Jun 2023 - Sep 2023

- Selected as a summer intern under the extremely selective Summer@EPFL programme.
- Worked with **benchmarking and optimization for Federated ML Algorithms**.
- Optimized gradient aggregation functions using **PyTorch, CUDA and PyCUDA** to work up to **2200% faster** compared to the previous implementation and restructured the ML pipeline.
- **Published a Python library** for efficient and **high-performance Distributed ML Applications**.

Boston University

Undergraduate Research Assistant

Boston, MA (Remote)

Jun 2022 - Sep 2022

- Studied Threat Modeling and Component Design under the supervision of Prof. Yazicigil.
- Created a dataset of methods from over **10** articles and an algorithm which categorizes threat models.
- Developed a helper tool using *C++* to design secure systems&circuits, according to the designer's needs.
- Explored methods to further develop the tool into an open-access website for developers to use.

JobAgent SE

Intern

Stockholm, Sweden (Remote)

Jul 2020 - Sep 2020

- Explored the data provided by the ESCO dataset, including **3008** occupations and **13890** skills.
- **Visualized** the data relating to the skill sets required for jobs using pandas and numpy.
- Created an algorithm that helps matching people with jobs according to their skill sets.

AWARDS & ACTIVITIES

Sakip Sabanci Encouragement Scholarship Award for Outstanding Success

Ranked top 5% among the students in my term.

Sabanci University

Sep 2022

Young Innovation in Times of Crisis Award

Selected in the **1st place** among all projects.

The Royal Swedish Academy of Engineering Sciences

May 2020

Young Member of the New York Academy of Sciences Award

Admitted into "The Junior Academy" program with an acceptance rate of **8%**.

The New York Academy of Sciences

Sep 2019

PROJECTS

Project Charisius | Python, PyTorch, CUDA, PyCUDA

- Developed, documented and published a Python library of **high-performance Byzantine-Resilient Gradient Aggregation Rules for Privacy-Preserving Distributed ML algorithms**, and Statistics.

Combating Covid-19 | Python

- Developed and visualized an algorithm to match job seekers with job providers in the Covid-19 outbreak.
- **Awarded first place** by the Royal Swedish Academy of Engineering Sciences

SKILLS

Languages

Python, **CUDA**, Java, HTML/CSS, C/C++

Libraries & Tools

PyTorch, **CUDA**, **PyCUDA**, **NVIDIA Riva**, **NVIDIA NeMo**, Tensorflow