

EDUCATION

Eidgenössische Technische Hochschule (ETH) Zürich

since Sep 2023

Swiss Federal Institute of Technology | Zurich, Switzerland

- BSc in Computer Science
- GPA: 5.33/6.00 (89%)
- Expected graduation date: August 2026

Gymnasium der Regensburger Domspatzen

Sep 2014—Jun 2022

Musical and Scientific-Technical High School | Regensburg, Germany

- Graduation: Abitur (general university entrance qualification)
- GPA: 1.0/1.0 | 885/900 points | valedictorian

INTERNSHIPS

axes4 GmbH

Aug 2022—Jul 2023

Software company | Zurich, Switzerland | www.axes4.com/en

- Software Developer for PDF Accessibility and Artificial Intelligence
- Created AI-based character recognition for over 150 Unicode characters in C# / .NET and implemented the network in the production software axesPDF
- Conceptualized, trained and implemented custom embedding and Transformer models with in-house tokenizer for PDF document structure recognition

Jülich Supercomputing Centre

Mar 2022

National research institution | Regensburg, Germany | www.fz-juelich.de/en/ias/jsc

- Worked with, programmed, and benchmarked quantum computers by DWave
- Developed novel quantum algorithms for manufacturing optimization

COMPETITIVE SUCCESSES AND PROJECTS

Case winner at START Summit x Hack

start-hack2024.vercel.app

Mar 2024

36-hour hackathon project, created an AI-powered performance tracking and learning platform for primary school teachers and students

- 1st place, awarded by the City of St. Gallen

QUANTOS - The quantum computing learning app

quantos-next.vercel.app/en

Apr 2023

Planned, developed, and tested a beginner-friendly and inclusive learning app

- 2nd place, awarded by the German National Youth Research Contest (Jugend forscht)

GUIDE-Walk

guide-walk.netlify.app

2019—2022

Built and developed an AI-powered autonomous guide system for the blind

- 1st place, awarded by the German National Youth Research Contest (Jugend forscht)
- „Make a Change“ award on national television for great social impact
- 3rd prize and special mention for the „most innovative work“ in the European Union DANOVA Foundation Ideas Competition („Concept for improving the mobility of blind and visually impaired people“)

EXTRACURRICULAR AND SOCIAL ENGAGEMENT

- **Spokesperson**, Zurich regional group of the German Academic Scholarship Foundation
- **Education Committee member**, Analytics Club at ETH Zurich (ACE)
- **Board member and event coordinator**, Hungarian Student Association at ETH Zurich
- **Voluntary mentor and course teacher for computer science**, German Young Researchers' Network (JuFORUM e.V.)
- **Boys' choir singer and orchestra player (flute)**, Regensburg Cathedral
- **Volunteer on call**, Bavarian Red Cross (first aid unit 1, Regensburg)
- **Jiu-Jiutsu trainee**, Budokan Regensburg e.V.

since Apr 2024

since Nov 2024

since Sep 2024

since Mar 2022

2014—2022

2016—2022

2014—2020

SKILLS

Coding: Advanced knowledge Python | C++ | Java, C# | HTML, CSS, TS | Flutter, Dart | Azure DevOps, Blob Storage
Languages: English (C1) | German (C2) | Hungarian (C2) | French (A2) | Latin (minor Latinum)

PUBLICATIONS

Development and optimization of a portable guidance system for the blind and visually impaired with the application of artificial intelligence

Sep 2022

Published in: Junge Wissenschaft | Physikalisch-Technische Bundesanstalt (PTB)

DOI: 10.7795/320.202205