

# Nicolas Huber

UNIVERSITY OF ZURICH

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<https://hubernicolas.github.io/aspiring-code-alchemist/>

## EDUCATION

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2022 – **University of Zurich** Msc Computer Science

- now
- Current average: (5.125 / 6)
  - Major Software Systems (90), Minor Data Science (30)
  - Expect completion date: 2024

2019 – **University of Zurich** BSc Computer Science

- 2022
- magna cum laude
  - Major Software Systems (150), Minor Information Systems (30)
  - Bachelor Thesis: Design and Implementation of an MTD Strategy Selection Agent using IoT Platform Metrics (Grade: 5.5 / 6)

2016 – **ETH Zurich** BSc Electrical Engineering and Information Technology (without a diploma)

2018

## WORK EXPERIENCE

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2021 – **Web Developer**, jkweb ag in Zurich

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- Creating web applications based on the Symfony framework
  - Maintenance and improvement of in-house ERP system
  - Leading course days in a vocational school for apprentice application developers at ICT Berufsbildungscenter AG
  - Testing iOS and Android apps as part of the app-team

## PROGRAMMING EXPERTISE

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2021 – **Working experience at jkweb ag**

- now
- Requirement analysis and stakeholder interviews
  - Planning and conceptualisation of tools
  - Implementation with the Symfony Framework (PHP, HTML, CSS, JavaScript, Twig, Doctrine)
  - Testing applications and tools

2019 – **Projects at the University of Zurich**

- now
- Master Project: As part of the ComBaCaL project, we designed and implemented a Symfony-based admin panel integrated with a React-powered Progressive Web App (PWA) supply manager. This solution supports community care workers in Lesotho by streamlining their daily activities, ensuring efficient coordination and optimized ordering.
  - Visual interactive data analysis project using machine learning and visualization techniques for a group semester project with Python (Flask) and React (Project award: Impact on Research)
  - Reactive MTD Strategy Selection Agent for my bachelor thesis that deploys appropriate countermeasures in the event of a malware attack (Python, Linux Shell)
  - Data analysis group project about heart disease using machine learning (Python)
  - Designing and implementing a tower defense game with two other students in the software lab based on React and the Spring Framework (Java)
  - Implementation of numerical methods in MATLAB
  - Coding assignments in a group of three on software patterns in Java

2016 – **Algorithms and Data Structures, modules at ETH Zurich**

- 2018
- Completion of the modules Informatik I/II
  - Implementation of a Raversi player (Othello) in Java using the Minimax algorithm

## LEADERSHIP AND ORGANISATIONAL SKILLS

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- 2020 – **Tutor for Assessment Subject People-Oriented Computing (English) at the University of Zurich**  
2021
- Preparation and carrying out of practice lessons for approx. 230 students
  - Correction and assessment of assignments and the assessment exam
- 2020 – **Mentor for a group (approx. 15) of first-year students, Seminar at the University of Zurich**
- Organisation of various events for first-semester students
  - Supervision and guidance of first-year students in the role of buddy/coach

## VOUNTARY ACTIVITIES

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- 2020 – **Actuary Kantonverband Luzerner Unihockey**  
2022
- Development and coordination of comprehensive floorball projects in Lucerne
- 2014 – **Junior coach for floorball at Unihockey Luzern (ULU)**  
now
- Development and coordination of comprehensive floorball projects in Lucerne
  - Planning and leading training sessions with 9- to 14-year-old juniors
  - Leading teams during the season
  - Participating with teams in finals as coach and assistant coach
  - Assistance in planning and conducting the annual training camp in Furtwangen (DE)
  - Further training in the form of J&S courses (J+S-Leiter Unihockey und Kindersport)

## FURTHER EXPERIENCE

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- 2015 – **Military Service: Infantry “Durchdiener” Commando 14 (Aarau, Schwyz and Birmensdorf)**  
2016
- Additional training on surveillance equipment and ammunition with explosive effect
  - Domestic operation in Geneva (embassy protection)
  - Member of the marching group for the 4-day march in Nijmegen (NL)

## KNOWLEGE IN COMPUTER & IT

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C & C++	Basic Skills
Python	Advanced Skills
MATLAB	Basic Skills
Java	Basic Skills
HTML & CSS	Advanced Skills
PHP	Advanced Skills
Java Script	Advanced Skills
React	Basic Skills
SQL	Advanced Skills
L <sup>A</sup> T <sub>E</sub> X	Advanced Skills
MS Office	Advanced Skills
Linux	Advanced Skills
Cyber Security	Basic Skills

## LANGUAGE SKILLS

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German	Native Language
English	Fluent in business (C1)

## INTERESTS AND HOBBIES

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Fitness	Floorball
Computer	IoT, Web Development, Data Visualization and Cyber Security
Psychology	Leaning and behavioural psychology