



# Oliver Nagl

## Curriculum Vitae

### Education

2022–now **BSc in Interdisciplinary Sciences**, *Swiss federal institute of technology, Zurich*,  
*First Year Examinations GPA – 5.58.*

Bachelor Interdisciplinary Sciences Biophysical-Chemistry track. Choosing mainly coursework in Biotechnological, computational and mathematical subjects. Such as *Genetics- Genomics*, *Immunology I + II*, *Cancer Progression: Mechanisms, Targets and Therapeutic Approaches* and *Numerical Methods for PDEs*, *Mathematical Methods for Physics* as well as *Advanced Machine Learning*

2021–2022 **Bsc in Artificial Intelligence**, *Johannes Kepler University, Linz*, *GPA – 1.9.*

Completed one year of the Bsc. AI next to preparing for the ETH entrance examination. Gained noteworthy experience in *Algorithms and Datastructures*, *Programming in Python* and *Machine Learning: Unsupervised Methods*

2016–2021 **Higher School Certificate in Chemical Engineering**, *HTL Wels department for Chemistry, Wels*, *GPA – 1.1.*

Extensive practical and theoretical training as chemical engineer, graduated with honors.

### Experience

02/2025–now **Bachelor Thesis**, *ETH, Zurich.*

Conducting my Bachelor Thesis in the group of Professor Kast under Tom Edwardson. Working on molecular modeling and protein design of the AaLS-13 protein cage.

06/2024–now **Board member**, *Student Biolab Zurich (SBL)*, Zurich.

Student Biolab Zurich is a ETH/UZH based association connecting students interested in Biology and Biotechnology. SBL organizes the ETH/UZH *IGEM* (International Genetic Engineering Competition) and *IDEC* (International Directed Evolution Competition) teams, runs the startup accelerator *Bioincubate* and advises projects in the SPH Biolab.

08/2023–now **Project at the SPH Biolab**, *Student Project House*, Zurich.

Genetic engineering of *Arabidopsis* to encode a bioluminescent system of N. Nambi. Following the work done in *Plants with genetically encoded autoluminescence*, *Nature Biotechnology*

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09/2024– **Cancer Progression: Mechanisms, Targets and Therapeutic Approaches**  
10/2024 **(Block course)**, ETH, Zurich.

Gained hands on experience in the handling and genetic modification of human cancer cell lines. Specifically working on how and when metastasis occurs, the influence of the hypoxic cancer microenvironment on the cancer and potential treatment routes.

06/2024– **Teaching Assistant in Thermodynamics**, Chemistry Student Association, Zurich.

06/2024 Teaching Assistant in the exam preparation course for Physical Chemistry I: Thermodynamics organised by the Chemistry student association VCS.

02/2024– **Semester Project at the Laboratory for Biosensors and Bioelectronics (LBB)**,

06/2024 ETH, Zurich.

Microfluidics research at the Laboratory for Biosensors and Bioelectronics (LBB) at ETH Zürich, in cooperation with the start-up Hemetron. Project: *Iodine concentration dependencies on electrochemical gold detection*

07/2023– **Research Intern in the Applied quantum computing in Life Sciences Group**,

02/2024 FHNW, MuttENZ.

Researching computational chemistry and quantum computational methods for prediction of chemical NMR properties in the Research group of Prof. Dr. Clément Javerzac. Experience with data analysis, parallel and high throughput computing. Co authoring the paper *Towards quantum utility for NMR quantum simulation on a NISQ computer*.

02/2022– **Personal assistant in the work place**, WAG Assistenzgenossenschaft, St. Valentin.

06/2022 Part time job as personal assistant next to my studies at JKU Linz. Helping people with disabilities in their day to day activities at work and after work.

06/2021– **Intern in Chemical Engineering**, ESIM Chemicals, Linz.

09/2021 Employee in the production and analysis of various chemicals. Including ensurance of GMP.

08/2020– **Intern in the department of research and development**, BOREALIS POLYOLE-

12/2020 FINE GMBH, Linz.

Writing of my diploma thesis for my graduation at HTL Wels in the department for research and development at Borealis Agrolinz Melamine. Working on the curing behaviour of commercial Melamine resins. Grade: 1

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## Computing skills

Basic HTML, SQL, Julia Programming Language

Intermediate L<sup>A</sup>T<sub>E</sub>X, PyTorch

Advanced PYTHON, R, C++, Unix, Matlab

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## Languages

German **Mothertongue**

English **Fluent - C1**

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