


Filip Sente

 **Work** : Via Adolfo Ferrata, 9, Dipartimento di Biologia e Biotecnologie "Lazzaro Spallanzani", 27100, Pavia, Italy

 **Email**: filip.sente@iusspavia.it

Gender: Male **Date of birth**: 17/10/1999 **Nationality**: Croatian

ABOUT ME

I am a PhD student, investigating the catabolism of tryptophan.

EDUCATION AND TRAINING

- [10/2024 – Current] **PhD Program in Biomolecular Sciences and Biotechnology**
Scuola Universitaria Superiore IUSS di Pavia
Address: Pavia, Italy |
- [10/2021 – 02/2024] **Master's degree in Molecular Biology**
University of Zagreb, Faculty of Science
Address: Zagreb, Croatia | | **Final grade**: Summa Cum Laude | **Thesis**: Multiple Simultaneous Docking of Small Molecules in Butyrylcholinesterase Active Site Using Deep Reinforcement Learning
- [10/2018 – 09/2021] **Bachelor's degree in Molecular Biology**
University of Zagreb, Faculty of Science
Address: Zagreb, Croatia | | **Final grade**: Summa Cum Laude | **Thesis**: Quantum Biology – The Application of Quantum Mechanics to Biological Systems
- [09/2014 – 06/2018] **Secondary music school**
Vatroslav Lisinski Music School
Address: Zagreb, Croatia | **Field(s) of study**: Piano
- [09/2014 – 06/2018] **Science and mathematics-oriented grammar school**
The Fifth Gymnasium
Address: Zagreb, Croatia |

WORK EXPERIENCE

- [04/2024 – 06/2024] **Laboratory internship**
Department of Biology and Biotechnology "L. Spallanzani", University of Pavia
Address: Pavia, Italy
Mentor: Andrea Mattevi, PhD
- [03/2023 – 03/2024] **Official guide**
Botanical garden, Faculty of Science
Address: Zagreb, Croatia
Mentor: Vanja Stamenković, PhD
- [10/2022 – 02/2024] **Master's thesis project**
Division of Physical Chemistry, Faculty of Science
Address: Zagreb, Croatia
Mentor: Tomica Hrenar, PhD
- [01/2022 – 05/2023] **Laboratory internship**
Division of Molecular Biology, Faculty of Science
Address: Zagreb, Croatia
Mentor: Nataša Bauer, PhD
- [12/2020 – 01/2021] **Laboratory internship**
Division of Molecular Biology, Faculty of Science
Address: Zagreb, Croatia
Mentor: Ivana Ivančić Baće, PhD

CONFERENCE PARTICIPATION

- [2023] **Building Potential Energy Surfaces from Quantum Chemical Docking by Deep Reinforcement Learning**
Computational Chemistry Day 2023
- Poster
Link: <https://www.croris.hr/crosbi/publikacija/prilog-skup/799792?lang=en>
- [2023] **Quantitation of fundamental attribute of life through xenobot classification**
European Colloquium on Philosophy of Life Sciences - EUPhilBio_2023
- Lecture
Link: https://www.ffrz.unizg.hr/wp-content/uploads/2023/05/Program_EUPhilBio_2023_.pdf
- [2022] **Quantum mechanical docking of small bioactive scaffolds within butyrylcholinesterase's active site**
7th Symposium of Chemistry Students
- Lecture
Link: <https://www.bib.irb.hr/1232950>
- [2022] **Quantum Mechanical Docking of Small Bioactive Molecules Within Cholinesterases' Active Sites**
Computational Chemistry Day 2022
- Poster
Link: <https://www.bib.irb.hr/1217059>

CONFERENCE AND WORKSHOP ORGANISATION

- [2023] **FEBS Advanced Practical and Lecture Course on Computational Approaches to Understanding and Engineering Enzyme Catalysis**
Volunteering as an On-Site Assistant.
- [2023] **Computational Chemistry Day 2023**
Volunteering as a member of the Local organizing staff.
- [2023] **European Colloquium on Philosophy of Life Sciences - EUPhilBio_2023**
Volunteering as a member of the Technical and Media Support crew.
- [2023] **Popular-scientific event 'Day and Night at the Faculty of Science'**
Official guide at the Botanical garden, Faculty of Science.
- [2022] **Computational Chemistry Day 2022**
Volunteering as a member of the Local organizing staff.
- [2019] **Popular-scientific event 'Day and Night at the Faculty of Science'**
Creating, organizing, and managing a workshop as a part of the 'Night of Biology' manifestation.

HONOURS AND AWARDS

[2023] **Scholarship for excellence Awarding institution:** University of Zagreb

State scholarship for students in STEM academic disciplines Awarding institution: Croatian Ministry of Science and Education

I was awarded this scholarship in academic years 2018/2019, 2019/2020, and 2020/2021.

Scholarship for excellence Awarding institution: The City of Zagreb

I was awarded this scholarship in school years 2016/2017, and 2017/2018.

[2017] **The 'Oscar of Knowledge' Award Awarding institution:** Education and Teacher Training Agency, Croatia

LANGUAGE SKILLS

Mother tongue(s): Croatian

Other language(s):

English

LISTENING B2 READING B2 WRITING B2

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

Microsoft Office package: Word, Excel, PowerPoint

- Advanced skill level

Molecular visualization: Avogadro, ChimeraX, Molden, VMD

- Intermediate skill level

Programming languages: Python, R and RStudio

- Basic skill level

HOBBIES AND INTERESTS

Ballroom dancing | Argentine tango | Origami and Papercraft | Piano playing