

Sevda ÖĞÜT

Computer Science PhD Candidate at EPFL
Specialized in Deep Learning for Biomedicine

Expected Graduation: March 2027 | [✉ sevda.ogut@epfl.ch](mailto:sevda.ogut@epfl.ch) |  |  | 

RESEARCH INTERESTS

I am dedicated to advancing **digital pathology** through **multimodal learning**, enabling AI models to not only assist in clinical decision-making but also provide interpretable insights. My work emphasizes **self-supervised learning** and the development of scalable foundation models for **computational biology**.

EDUCATION

PhD Candidate in CS Mar 2023 - Present
EPFL, LTS₄ *Switzerland*

My current research is supervised by Prof. [Pascal Frossard](#) and Dr. [Dorina Thanou](#).

Project Student Sep 2022 - Feb 2023
EPFL, SENS Lab *Switzerland*

Under the supervision of Assoc. Prof. [Haitham Al Hassanieh](#), I contributed to advancing multi-transmitter **molecular communication** systems [4].

BSc in EE Sep 2018 - Jun 2022
Bilkent University, CYBORG *Turkey*

I worked as an undergraduate researcher along with Assoc. Prof. [Cem Tekin](#) on **multi-armed bandits** [3]. I was ranked in the **top 10%** among 130 students in the 2018 cohort with a GPA of **3.91/4.00**.

PUBLICATIONS

- [1] **Öğüt, Sevda**, Hurtado, Carlos, Vincent-Cuaz, Cédric, Dubljevic, Natalia, Subramanian, Vaishnavi, Thanou, Dorina, Frossard, Pascal, “[From Vision to Graph Self-Supervised Learning in Digital Pathology](#)”. In: *ICML 2025 Workshop on Multi-modal Foundation Models and Large Language Models for Life Sciences*. 2025.
- [2] Sbicego, Luca, **Öğüt, Sevda**, Madeira, Manuel, QIN, Yiming, Thanou, Dorina, Frossard, Pascal, “[On the Role of Structure in Hierarchical Graph Neural Networks](#)”. In: *I Can’t Believe It’s Not Better: Challenges in Applied Deep Learning*. 2025.
- [3] Elahi, Sepehr, Atalar, Baran, **Öğüt, Sevda**, Tekin, Cem, “[Contextual Combinatorial Multi-output GP Bandits with Group Constraints](#)”. In: *Transactions on Machine Learning Research* (2023).
- [4] Wang, Jiaming, **Öğüt, Sevda**, Al Hassanieh, Haitham, Krishnaswamy, Bhuvana, “[Towards Practical and Scalable Molecular Networks](#)”. In: *Proceedings of the ACM SIGCOMM 2023 Conference*. 2023, pp. 62–76.
- [5] Sever, Murat, **Öğüt, Sevda**, “[A Performance Study Depending on Execution Times of Various Frameworks in Machine Learning Inference](#)”. In: *2021 15th Turkish National Software Engineering Symposium (UYMS)*. IEEE. 2021, pp. 1–5.

SELECTED PROJECTS

Benchmarking Instance-Level Learnability and Interpretability in Multiple Instance Learning

- Paper in preparation for **DMLR**
- Comparing the instance-level interpretability and learnability performance of various MIL algorithms

Spatial Organization of Immune Cells in Metastatic Melanoma Predicts Immunotherapy Response

- Researched the role of tertiary lymphoid structure organization in progression-free survival of metastatic melanoma patients using graph neural networks
- Abstract presented at the Swiss Cancer Center Léman with collaborators from Lausanne Hospital (CHUV)

ADDITIONAL EXPERIENCE

Participant, OxML Health & Bio Summer School

Jul 2024

University of Oxford

- Engaged in discussions about the latest advances in machine learning for healthcare with experts from academia and industry

Participant, Life Sciences Hackathon

Apr 2024

EPFL

- Developed *OncoGraph*, a deep learning model that extracts cell-level features from cancer images and constructs tissue graphs adhering to homophily metrics

Teaching Assistant

Mar 2023 - Present

EPFL

- CS 433 Machine Learning - Supervised student projects for a course of 600 students
- EE 452 Network Machine Learning
- COM 490 Large-scale Data Science for Real-World Data

SKILLS

Programming: Advanced Python and MATLAB, Intermediate Hive, Spark, SQL, VHDL, and Assembly.

Tools: PyTorch, PyTorch Geometric, NetworkX, PyTorch Lightning, numpy, pandas, scikit-learn, scikit-image, pillow, OpenCV, OpenSlide, QuPath, Git, Linux, Latex

Languages: Turkish (Native), English (Fluent, TOEFL 113/120), French (Fluent, DELF B2 76/100)

AWARDS

CS Distinguished Service Award - Honorable mention, EPFL

Dec 2023

- In recognition of exceptional service benefiting the CS department and its students.

Research & Academic Excellence Award, Bilkent University

Jun 2022

- Awarded to the top 10% of undergraduate students in recognition of research contributions.

EXTRA-CURRICULAR ACTIVITIES

President of [EPIC](#) (EPFL PhDs of IC)

2024

- Organized social activities for PhD students.
- Hosted tech talks with engineers from Google, Meta, and Uber.

Hobbies:

- reading, [piano](#), board games, running