

# Radu Vintan

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## Education

- 2022–present **Ph.D. in Computer Science, EPFL**  
Advisor: Ola Svensson
- 2020–2022 **Master's in Informatics, Technical University of Munich (TUM), GPA: 1.0/1.0**
- 2017–2020 **Bachelor's in Informatics, Technical University of Munich (TUM), GPA: 1.0/1.0**

## Research Interests

I am currently interested in studying and researching: approximation and online algorithms, linear programming and its use in designing efficient algorithms.

Other interests include, in non-increasing order of proficiency: machine learning, complexity theory, convex optimization, functional programming languages.

## Publications

### **Online Edge-Coloring is (Nearly) as Easy as Offline**

Joakim Blikstad, Ola Svensson, Radu Vintan, David Wajc.  
STOC 2024.

### **Simple and Asymptotically Optimal Online Bipartite Edge Coloring**

Joakim Blikstad, Ola Svensson, Radu Vintan, David Wajc.  
SOSA 2024.

### **Fast Algorithms for Loop-Free Network Updates using Linear Programming and Local Search**

Radu Vintan, Harald Räcke, Stefan Schmid.  
INFOCOM 2024.

## Projects and practical work

- 2022 **Distributed Information Systems Projects (EPFL)**  
As part of this course at EPFL, me and two other PhD students worked on three projects, involving the following topics: text retrieval, recommender systems and named entity disambiguation.
- 2022 **Road Segmentation Project (EPFL)**  
As part of the *Machine Learning* course at EPFL, me and two other PhD students implemented and trained an U-Net neural network to identify roads in satellite images. We also tested the effectiveness of various data augmentations.
- 2021-2022 **Guided Research Project (TUM)**  
Supervisor: Prof. Harald Räcke  
I developed heuristic and competitive algorithms for the Dynamic Minimum Linear Arrangement Problem.
- 2021-2022 **Interdisciplinary Project (TUM)**  
Supervisors: PD Dr. René Brandenberg, Wolfgang F. Riedl  
I worked on applying the Revised Normal Boundary Intersection (RNBI) method for multi-criteria optimization problems to a manpower planning problem.
- 2019-2020 **Practical Course: Algorithms for Programming Contests (TUM)**  
In this course, I practiced solving competitive programming problems.

## Teaching

- 2023-2024 **Algorithms Courses (EPFL)**  
Since 2023, I have served as a teaching assistant in each semester for either Algorithms 1 (Introduction to Algorithms) or Algorithms 2 (Advanced Algorithms) at EPFL.

## Awards and Scholarships

- 2022-2023 **EPFL Ph.D. Fellowship**  
The fellowship allows Ph.D. students in Computer Science at EPFL to explore different research labs through semester projects during their first year.
- 2022 **SAP Student Award**  
The award is offered by SAP for an excellent Master's Thesis in Informatics at TUM.
- 2018 **best.in.tum**  
Became a member of best.in.tum: a program which promotes the best two percent of students studying Informatics at TUM.
- 2017-2022 **DAAD Scholarship**  
Received a scholarship from the German Academic Exchange Service (DAAD) for my Bachelor's in Informatics. The scholarship was later extended for my Master's.
- 2017 **6th place, Romanian Mathematics Olympiad (RMO)**  
Received a silver medal (12th Grade). Participated at the first selection round (out of five) for the national team for the IMO (International Mathematical Olympiad).
- 2016 **3rd place, Romanian Mathematics Olympiad (RMO)**  
Received a gold medal (11th Grade). Participated at the first selection round (out of five) for the national team for the IMO.

## ———— Languages

German	C1 (DSD II Zertifikat)
English	C2 (Cambridge Certificate)
Romanian	native

## ———— Computer skills

Moderate experience from university projects or competitive programming with following languages:

- Java, Python (also NumPy, SciPy, Pytorch), C++

Basic acquaintance with:

- OCaml, Haskell, Javascript