Radu Vintan

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Education

2022-present **Ph.D. in Computer Science**, *EPFL*
Advisor: Ola Svensson
Expected Graduation Date: October 2026

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*

Work Experience

Summer 2025 **Software Engineering Intern at Meta**
Working as an engineer in the Ad Experimentation team.

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: natural language processing, machine learning, optimization.

Publications

Online Edge Coloring: Sharp Thresholds
Joakim Blikstad, Ola Svensson, Radu Vintan, David Wajc.
FOCS 2025.

Deterministic Online Bipartite Edge Coloring
Joakim Blikstad, Ola Svensson, Radu Vintan, David Wajc.
SODA 2025.

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

2025 **Modern Natural Language Procesing Project (EPFL)**
In a team of four, we trained various natural language processing models to design a private AI tutor specialized in EPFL courses. The techniques we used include supervised fine-tuning, quantization, DPO (Direct Preference Optimization) and RAG (retrieval-augmented generation).

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 **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:

- Python (also PyTorch), C++, Java

Basic acquaintance with:

- OCaml, Haskell, Javascript