

Contact data

Name: Maciej Pacut
Birth date: 5th of April 1989
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Education

University of Wrocław, Department of Mathematics and Computer Science

- **PhD in Applied Mathematics, specialization in Computer Science**, 2013 — now
- **Master's degree in Computer Science**, 2011 — 2013
- **Bachelor's degree in Computer Science**, 2008 — 2011

PhD details

Group: Combinatorial Optimization Group

Thesis supervisor: dr hab. Marcin Bieńkowski

Thesis: “Algorithmic aspects of contemporary networks”, including topics:
batch-processing, virtual machine management, router cache management

Selected publications:

- “Dynamic Balanced Graph Partitioning”, M. Bieńkowski, C. Avin, A. Lokus, M. Pacut, S. Schmid
published at **SIAM Journal of Discrete Mathematics**
- “Online Tree Caching”, M. Bieńkowski, J. Marcinkowski, M. Pacut, S. Schmid, A. Spyra
published at **ACM SPAA '17**

Theoretical computer science experience

Grants:

- Main contractor in Polish National Science Centre grant Preludium 2016/23/N/ST6/03412,
“**Online algorithms for packing and covering problems**”, 2017 — 2018
 - Assistant in Polish National Science Centre grant 2013/09/B/ST6/01538,
“**Online algorithms for fundamental network problems**”, 2013 — 2016
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Internships and short-term visits:

- INET, Technical University of Berlin (three months in total over 2014 – 2016)
- Communication Technologies Group, CS Faculty, University of Vienna (short-term visit in 2018)

Summer schools:

- ADFOCS 2014, Max Planck Institute in Saarbrücken
- FPT School 2015, University of Warsaw

Conference participation:

- ALGO 2015, ACM SPAA 2018, ICALP 2018, PODC 2018

Selected scientific projects:

- Mouse retina nerve tissue reconstruction: finding neurons geometry by 3D image analysis
- Scene lighting using deferred shading method: internships in gamedev studio Techland
- Finding intersections of Bézier curves: fast-converging cubic clipping method

Computer science skills

Algorithm design and analysis ◦ online and approximation algorithms

- computational complexity and lower-bounds
- efficient algorithm implementation

Computer systems ◦ operating systems ◦ networking ◦ parallel and distributed programming

Games and graphics ◦ parametric curves ◦ computational geometry ◦ image processing
