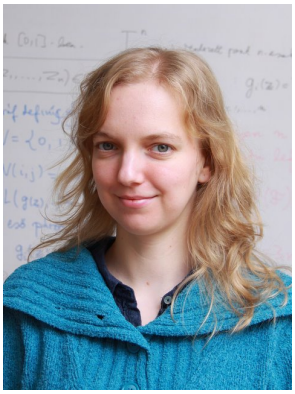
Curriculum Vitae



Name: **Júlia Pap**
Address: Käferholzstrasse 58,
8057 Zürich, Switzerland
E-mail: papjuli@gmail.com
Phone: +41 78 7465662
Home page: https://papjuli.github.io/

Work experience

- Machine learning engineer at Archilogic 2017 December – 2021 June

  Projects I worked on:
  - automatic zoning of office spaces
  - automatic parsing of floor plan images
  - automatic furnishing of rooms

- Software engineer at Creo Group 2017 May – July
  - I worked on detecting the topics of online news articles for the backend of an anti–mediabubble app (Java).

- Research fellow at Institute for Computer Science and Control (SZTAKI), Informatics Laboratory, Data Mining and Search Group 2014 – 2016

  Some projects I worked on:
  - new recommender system methods that leverage location information, for recommending topics for Twitter users based on geo-tagged tweets (C++)
    (Paper: R. Pálovics et al., *Location-aware online learning for top-k recommendation*, Pervasive and Mobile Computing)
  - matrix-factorization based recommender system in Python
    (Paper: R. Pálovics et al., *Statistical analysis of Nomao customer votes for spots of France*, The European Physical Journal B)

Research experience

- Research assistant at ELTE Institute of Mathematics, Department of Computer Science and Department of Operations Research. 2009 – 2013

  Research grants I participated in:
  - *Combinatorial Optimization: Algorithms, Structures, Applications, II.*
  - *Discrete and Continuous: interfaces between graph theory, algebra, analysis and geometry*
  - *Algorithms and Structures in Discrete Optimization*
  - *From discrete to continuous: understanding discrete structures through continuous approximation*
  - *Designing heterogeneous networks* supported by France Telecom (2008)

- ADONET–Marie-Curie research fellow in G-SCOP, Grenoble, France, under the supervision of Professor András Sebő. 2007
- Member of the Egerváry Research Group on Combinatorial Optimization (EGRES). 2003 – 2013

Education

- Deep Learning Specialization on Coursera 2021
- PhD in Applied Mathematics 2013
  Eötvös University, Budapest (Summa cum laude). Advisor: András Frank.
  Thesis: *Integrality, complexity and colourings in polyhedral combinatorics*.
- MSc in Mathematics 1999 – 2004
  Eötvös University, Budapest. Advisor: András Frank.
  Thesis: *Structure and polyhedra of stable matchings* (in Hungarian).

Programming skills

- Python, Java, JavaScript, C++.
- Some tools I used: Vue, TensorFlow, OpenCV, Boost geometry, Numpy, Pandas, matplotlib, Graphlab Create, ND4J, AWS.

Teaching experience

- Course taught as instructor: game theory.
- Courses taught as teaching assistant: combinatorial algorithms, operations research, discrete mathematics.

Publications

- I have 11 papers in refereed journals and conference proceedings and 5 technical reports, in the following topics: recommender systems, polyhedral combinatorics, stable matchings, network flows, see www.cs.elte.hu/~papjuli/publications.html.

Other projects and services

- I participated in the NASA Datanauts program.
- Stipend for attending the doc-course *Geometric Graphs and Orders* of the Berlin Research Training Group "Methods for Discrete Structures", Summer 2009, Germany.
- I advised Vanda Horváth, BSc. Title of her thesis: *Schnyder-labelings and applications*.

Languages

- Hungarian (native), English (advanced) and German (basic).

September 2021