

Curriculum Vitae of Prof. Tapio Pahikkala

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Degrees

- Title of Docent in Computer Science, University of Turku, Finland, 2011
- Doctor of Philosophy in Computer Science, University of Turku, Finland, 2008
- Master of Science in Computer Science, University of Turku, Finland, 2003
- Bachelor of Science in Computer Science, University of Turku, Finland, 2002

Current employment

- Associate Professor (tenure track Level II), Dept. of Computing, Uni. Turku, 01.10.2018–30.9.2022

Previous work experience

- Assistant Professor (tenure track Level I), Dept. of Inf.Tech., Uni. Turku, 01.09.2015–30.09.2018
- University Lecturer in Dept. of Inf.Tech., Uni. Turku, 01.07.2014–31.08.2015
- Professor, Department, Dept. of Information Technology, Uni. Turku, 01.09.2013 – 30.06.2014
- University Lecturer, Dept. of Information Technology, Uni. Turku, 01.03.2013 – 31.08.2013
- University teacher, Dept. of Information Technology, Uni. Turku 01.01.2013 – 28.02.2013
- Postdoctoral researcher funded by Academy of Finland 01.01.2010–31.12.2012
- Various teacher and researcher positions, Dept. of Inf.Tech., Uni. Turku, 19.10.2000–31.12.2009

Research funding and grants

- Academy of Finland: “AI technologies for interaction prediction in biomedicine” 2022-2024 € 198043
- Academy of Finland: “Machine Learning for Systems Pharmacology” 2021-2025 € 164268
- PRIVASA, Business Finland, (Co-PI, 2021 - 2023, € 717 590)
- Privacy preserving AI for health data, Business Finland, (Co-PI, 2020, € 60 000)
- EIT Digital funded research based MOOC development 2019 € 29 954.
- Academy of Finland: “Tensor Learning for Biomedicine” 2018-2019 € 186 930
- Academy of Finland: “Tensor-Based Machine Learning for Big Data” 2017- 2021 € 370741.
- Centre for Economic Development, Transport and the Environment: Funding for a Countryside Innovation Group for a project “Identification of common wild oat and other weeds from drone photographs” together with Adj.-Prof Esa Tyystjärvi 2017.03.01 – 2019.12.31 (Funding for my subproject € 302564)
- Regional Council of Southwest Finland: “ICT education export”, 1.11.2016-31.10.2017 (€ 79483)
- BioCity Turku Research programs, 2016-2020, jointly with several research laboratories (€ 11622)
- TribeFlame Ltd. funded “Computational Analysis of Mobile Game Data” 2015.10.01–2016.09.30 (€ 30000)
- Tekes: “New computational methods for the effective utilization of public data” 2013-2014 (€ 320584).
- Academy of Finland, Postdoctoral researcher’s project for the years 2010-2012 (€ 280287)
- Preparation of funding applications two other Academy of Finland funded projects led by others
- Minor grants and funding: Turku University Foundation 2012 (€ 1200) and 2005 (€ 1200), TEKES TULI Funding 2008 (€ 5000), Nokia Scholarship by Nokia Foundation 2006 (€ 5000) and 2005 (€ 5000)
- Grants acquired by the doctoral students under my supervision: UTU Graduate School (7), Instrumentarium Research Foundation, Cultural Foundation, Turku University Foundation, Nokia Foundation

Research output

- 169 refereed scientific articles (92 journal, 77 conference)
- H-index: 34; 4749 citations (Google Scholar, 3.12.2021).
- Full list of publications: <http://staff.cs.utu.fi/~aatapa/publications/>

Research supervision and leadership experience

Leadership training

- Academic Leadership provided by Turku School of Economics 2020
- Leadership coaching in University of Turku 2016

Research and teaching leadership

- Head of EIT Digital Master Programme in Data Science in Turku, 2022-present
- Subject Leader of Computer Science, Dept. of Inf.Tech., Uni. Turku, 01.09.2013–31.05.2015
- Research project leaderships: 11 (see research funding for details)

Supervision

- Supervision of postdoctoral researchers: 4
- Supervised doctoral dissertations: 11 (ongoing supervisions: 7)
- Doctoral thesis committee memberships: 4
- Supervisor of tens of Bachelor’s and Master’s theses

Teaching merits

- University Pedagogy worth of 25 credits. 2014.
- Planned the curriculum of EIT Digital Master Programme in Data Science in Turku
- In charge of curriculum planning for both Bachelor's and Master's Programmes on Computer Science for the academic years 2014-2016, University of Turku, Finland. On 2018 for ICT education export.
- Teaching in University of Turku, Finland 2000-2020: Lecturer or person in charge for more than 15 courses. Teaching also in Aalto University, University of Eastern Finland, University of Tampere.
- Funding received for the development of teaching:
 - EIT Digital funding for MOOC development 2019 (€ 29 954).
 - Regional Council of Southwest Finland: "ICT education export", 1.11.2016-31.10.2017 (€ 79483)

Awards and honours

- Our software one of winning systems in 2017 IDG-DREAM Drug Kinase Binding Prediction Challenge
- Prostate Cancer DREAM Challenge: Our team won the 1st price in Sub-Challenge 1a. Results are published by Guinney et al. 2017 in Lancet Oncology.
- 2014 Broad-DREAM Gene Essentiality Prediction Challenge: 1st price in Sub-Challenge 3.
- Game Data Mining Competition 2017 by NCSOFT and IEEE Computational Intelligence and Games. Second in track 1 (churn classification), third in track 2 (player survival analysis)
- BioNLP'09 Shared Task on Event Extraction 2009: Our team won the 1st price. [Link]
- Best paper awards from 5 conferences prior to 2015.

Other key academic merits

- Editorial board member for international scientific journals: Machine Learning (2021-present)
- Memberships in editorial committees: Editor of Proceedings of The 5th International Conference on Natural Language Processing (FinTAL'06), Proceedings of The Federated Computer Science Event 2012
- Evaluation of doctoral theses:
 - 2 international doctoral dissertation reviews (Belgium, Italy).
 - 1 times an opponent for doctoral thesis defence.
 - 13 times a pre-examiner for doctoral theses in Finland.
 - One time examiner for a licentiate thesis.
- Peer review of international research funding applications: Altogether 13 review assignments.
 - National Science Center, Poland. Four grant proposal review assignments on 2021
 - Estonian Research Council (ETAg), Postdoctoral project, 2020 and 2021
 - Mitacs Accelerate Proposal Application 2018 and 2021
 - AVIESAN and the French National Cancer Institute: Interdisciplinary approaches in oncogenic processes and therapeutic perspectives: Contributions of mathematics and informatics to oncology 2019. Five project proposal review assignments on 2019.
 - NSA Mathematical Sciences Grant Program 2014
- Administrative or working group positions:
 - Doctoral Programme of Clinical Investigation (CLIDP) (2015 – present)
 - Doctoral Programme in Technology (DPT) Computing and Engineering sub-program (2021 – present)
 - Turku Brain and Mind Center (2020 – present)
 - Turku Graduate School (UTUGS) Steering Committee (2017 – 2019)
- Board memberships and positions of trust in scientific organisations:
 - The Finnish Artificial Intelligence Society (2009–2013, 2020-present)
 - The Finnish Society for Computer Science (2014–2017)
 - The Finnish Pattern Recognition Society (2012–2015)
 - GOLD Subcommittee of IEEE Computational Intelligence Society (2012)
 - Social Media Subcommittee of IEEE Computational Intelligence Society (2011–2012)
- Referee for scientific publications: more than 30 conference program committee memberships, including ICML, NIPS/NeurIPS, AAAI, IJCAI, ACM SIGKDD, ICLR, etc.; Reviews for more than 20 journals. See Publons profile: <https://publons.com/researcher/1355943/tapio-pahikkala/peer-review/>
- Faculty recruitment committees: 3 in University of Turku
- Organising scientific conferences: 4

Scientific and societal impact

Merits in research communication and appearing as an expert in the media:

- Interview in Turun Sanomat newspaper science pages: 2018 and 2013
- Article in Helsingin Sanomat describing our research result: <https://www.hs.fi/tiede/art-2000007659157.html>

Other positions of trust:

- Turku University representative in focus area discussions of technical universities in data analysis 2012.
- National working group developing student admission criteria and exams for comp. sci. 2011 - 2013

Open science and research: Several open source software libraries and open data sets for research