

## Curriculum Vitae of Tuomas Mäkilä

**Full Name:** Mäkilä, Tuomas Sulo Toivo

**Citizenship:** Finnish

**Current Residence:** Turku, Finland

### Degrees

*Doctor of Science in Technology, November 2012*

University of Turku (Turku, Finland)

Information and Communication Technology Major (Software Engineering)

*Master of Science in Technology, November 2004*

Åbo Akademi University (Turku, Finland)

Software Engineering Major, Embedded Systems and Business Economics Minor

### Current position

*Assistant Professor of Digital Transformation & Software Engineering, tenure track, August 2019 –*

University of Turku (Turku, Finland)

Department of Computing

### Previous Work Experience

*Senior Research Fellow, January 2013 – July 2019*

University of Turku (Turku, Finland)

Technology Research Center unit / Department of Future Technologies

Various Research and Teaching Positions, August 2004 – December 2012

University of Turku (Turku, Finland)

Department of Information Technology / Technology Research Center unit

*Programmer / Thesis Worker (part time), May 2001 – February 2004*

TAC Finland Ltd. / Schneider Finland Ltd.

IT department of a multinational building automation company

### Leadership and Funding in Research Work

Responsible leader in the following research, development and education projects for Department of Computing, Technology Research Center unit and/or University of Turku:

<p><i>Green Metrics for Public Digitalization Acquisitions – MitViDi, consortium leader, 1/2022 – 8/2023:</i></p> <ul style="list-style-type: none"> <li>- Measurement of the environmental footprint of the ICT system in the public acquisitions</li> </ul> <p>EU ERDF REACT funding, Department of Computing budget: c. 150 k€ / Total budget: c. 522 k€</p>	<p><i>Full Stack Training for Immigrants, responsible leader, 1/2021 – 12/2023:</i></p> <ul style="list-style-type: none"> <li>- Continuing education training of full stack technologies, 30 ECTS, 60 students</li> </ul> <p>Ministry of Education and Culture education project Department of Computing budget: c. 280 k€</p>
<p><i>Digi-SAAPAS, WP lead / university lead, 1/2020 – 12/2022:</i></p> <ul style="list-style-type: none"> <li>- Development of the hiking data mobile app - <a href="https://kartta.virma.fi/">https://kartta.virma.fi/</a></li> </ul> <p>European Agricultural Fund for Rural Development (EAFRD) R&amp;D project Department of Future Technologies budget: c. 40 k€ / Total budget: c. 231 k€</p>	<p><i>Full Stack Training, responsible leader, 8/2018 – 12/2020:</i></p> <ul style="list-style-type: none"> <li>- Continuing education training of full stack technologies, 30 ECTS, 60 students</li> </ul> <p>Ministry of Education and Culture education project Department of Future Technologies budget: c. 240 k€</p>
<p><i>Hospital Ship Reimagined, PI, 8/2019 – 1/2020</i></p> <ul style="list-style-type: none"> <li>- Preparation project for development of the Finnish hospital ship concept</li> </ul> <p>Business Finland Co-Creation research project</p>	<p><i>ChemSAR, WP lead, 11/2015 – 5/2019</i></p> <ul style="list-style-type: none"> <li>- Development of learning platform and education game for maritime SAR ops</li> </ul> <p>European Regional Development Fund (ERDF)</p>

Department of Future Technologies budget: c. 40 k€ / Total budget: c. 100 k€	research & development project Department of Future Technologies budget: c. 60 k€ / Total budget: c. 2 500 k€
<i>ICTEntr, WP lead, 10/2015 – 10/2018</i> - ICT curriculum development with three Vietnamese universities Erasmus+ funded teaching capacity building project Department of Future Technologies budget: c. 58 k€ / Total budget: c. 220 k€	<i>Co-creative Snacks, WP lead, 5/2015 – 9/2017</i> - Research on applying gamification technologies to promote healthier snacking TEKES ERDF funded research project Department of Future Technologies budget: c. 250 k€ / Total budget: c. 880 k€
<i>RuokaEpeli WP lead, 5/2015 – 3/2017</i> - Development of learning game to teach balanced eating for kids Agency for Rural Affairs funded research & development project Department of Future Technologies budget: c. 70 k€ / Total budget: c. 240 k€	<i>Gamified Solutions in Healthcare, PI, 1/2014 – 8/2016</i> - Research on applying gamified solutions especially in the elderly health care TEKES funded research project University of Turku budget: c. 230 k€ / Total budget: c. 800 k€
<i>FinTech3DExpo, WP lead / university lead, 12/2014 – 12/2016</i> - Development of a 3D digital exhibition platform for Finnish manufacturing industry Ministry of Employment and the Economy funded development project Technology Research Center budget: c. 140 k€ / Total budget: c. 380 k€	<i>Suomi3D, WP lead, 8/2014 – 6/2015</i> - Development of VR learning game prototype to teach Finnish for immigrants European Social Fund (ESF) research & development project Technology Research Center budget: c. 45 k€ / Total budget: c. 400 k€
<i>ICT Edu, WP lead, 5/2013 – 12/2015</i> - Assessment of ICT curriculum of Hanoi University of Science and Technology Ministry for Foreign Affairs funded education development project Technology Research Center budget: c. 90 k€ / Total budget: c. 430 k€	<i>Game Developer Trainee Program, WP lead / university lead, 8/2012 – 12/2014</i> - Continuing education training of full game technologies, 30 ECTS, 45 students Centre for Economic Development, Transport, and the Environment education project University of Turku budget: c. 225 k€ / Total budget: c. 420 k€

In addition, responsible leader of several smaller co-operative and service research projects. Leader of the software engineering M.Sc. (Tech.) study program at the University of Turku. Flavoria research platform board member. University of Turku Research to Business evaluation board member.

### Supervision

<i>Project researcher Mikko Jaakola, since October 2020 (ongoing)</i> Work title: Short-Term Events as Source for Software Innovations Role: Primary supervisor	<i>PhD student (part-time) Tomi Juhola, since January 2013 (ongoing)</i> Work title: Agile Software Development and Innovations Role: Secondary supervisor
<i>Project researcher Tapani Joelsson, since January 2014 (ongoing)</i> Work title: Game Design Patterns in Serious Games Role: Secondary supervisor	<i>PhD student (part-time) Aleksandra Karimaa, since May 2014 (in pre-examination)</i> Work title: On Evaluating Video Surveillance Systems Role: Primary supervisor

Supervisor of 25 M.Sc. theses and multiple B.Sc. theses.

### Pedagogical Competence

Participation of the teaching of over 30 university courses (mainly advanced level). Head of Software Engineering major in the national M.Sc.(Tech.) in ICT and the international MDP in ICT programmes of University of Turku. Leader of “Full Stack Training (30 ECTS)” – program 2018 – 2023 and co-leader and primary planner of ELY funded “Game Developer Trainee (30 ECTS)” –program 2012 – 2014. Chair of the Digital Learning Methods and Platforms Committee (DOMY) of the Faculty of Technology, University of Turku.