

Alexander Meaney

Curriculum Vitae

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PERSONAL INFORMATION

Alexander Juhani Brian Meaney
Kortteentie 4 B 2
00700 Helsinki

Phone +358 90 829 8880
alexander.j.meaney@gmail.com

Date and place of birth:
7 December 1983, Joensuu, Finland

ORCID iD:
0000-0002-2093-0868

SUMMARY

Researcher specializing in medical imaging and inverse problems. My key strength is interdisciplinary competence: I have strong experience in both mathematical and computational methods, as well as experimental laboratory work involving physical measurements and instrumentation.

EDUCATION

- 2025** **Doctor of Philosophy, University of Helsinki**
Mathematics
- 2015** **Master of Science, University of Helsinki**
Major: Physics
Minors: Mathematics, Astronomy
- 2013** **Bachelor of Science, University of Helsinki**
Major: Physics
Minors: Theoretical Physics, Computer Science
- 2002** **Matriculation Examination, Joensuu Lyseo High School**

LANGUAGE SKILLS

Finnish: Native language **English:** Native language
German: Satisfactory **Swedish:** Satisfactory

CURRENT POSITION

University of Helsinki, Dept. of Mathematics and Statistics 3/2025 - 12/2025
Postdoctoral Researcher

- ◇ Working on the TOMOHEAD collaboration project funded by Business Finland, involving the University of Helsinki, the University of Oulu, and medical technology companies, including Planmeca Oy and Detection Technology Plc.
- ◇ Developing computational methods for cone-beam imaging of the head. Work includes designing X-ray imaging systems, conducting measurements, and processing measurement data.
- ◇ Coordinating collaboration with other project partners.
- ◇ Academic research career phase II.

WORK EXPERIENCE

University of Helsinki, Dept. of Mathematics and Statistics 1/2017 - 2/2025
Doctoral Researcher (full-time)

- ◇ Doctoral research in the computational inverse problems group, focusing on open data and computational methods for computed tomography.
- ◇ Strong experience in collaboration with medical technology companies.
- ◇ Numerous presentations at international scientific conferences.
- ◇ Lecturer for the course *Inverse Problems Project Work* from 2021 to 2024.

HUS Medical Imaging, Meilahti Hospital 9/2015 - 12/2016
Resident Physicist / Researcher (full-time)

- ◇ Versatile tasks in the radiology unit, including radiation safety and quality assurance in imaging.
- ◇ Development of an automated quality control system for computed tomography.

University of Helsinki, Dept. of Mathematics and Statistics 9/2014 - 8/2015
Research Assistant (partly full-time, partly part-time)

- ◇ Master's thesis research in the computational inverse problems group, focusing on the design and construction of an X-ray imaging system.

HUS Medical Imaging, Meilahti Hospital 6/2014 - 8/2014
Summer Intern (full-time)

- ◇ Radiology unit.

University of Helsinki, Dept. of Physics 6/2012 - 11/2013
Research Assistant (partly full-time, partly part-time)

- ◇ Research and bachelor's thesis work in the microtomography laboratory.

Technology Academy Finland (TAF) 4/2007 - 8/2010
Project Assistant (part-time)

- ◇ Administrative tasks and event organization for the background organization of the Millennium Technology Prize.

Other Work Experience

Various jobs as a construction assistant (2007, 2011) and as a salesperson (2001, 2004 - 2006).

OTHER SKILLS AND INTERESTS

Programming languages:	MATLAB, Python, Scala, Java, C, HTML, JavaScript
Software:	XCAT, LaTeX, Microsoft 365
Operating systems:	Windows, OS X, Linux
MATLAB File Exchange:	mathworks.com/matlabcentral/profile/authors/4337274
Military rank:	Sergeant, Air Force
Hobbies:	Guitar, gym