

# JOHAN HEKTOR

## PERSONAL DATA

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DATE OF BIRTH: 30 August 1988  
NATIONALITY: Swedish  
ADDRESS: Sofielundsvägen 44B, 21434 Malmö  
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## EDUCATION

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FEB 2013-MAR 2019 Doctor of Philosophy in the subject Solid Mechanics  
DIVISION OF SOLID MECHANICS, LUND UNIVERSITY  
Thesis title: *Tin whiskers: experiments and modelling*  
My research was focussed on understanding the mechanisms responsible for the formation and growth of tin whiskers in the Cu-Sn system. The research included theoretical development of models, finite element simulations, and experimental work using synchrotron x-ray diffraction and electron microscopy.  
Supervisors: Matti Ristinmaa and Stephen Hall

SEP 2008-DEC 2012 Master of Science in Mechanical Engineering  
LUND UNIVERSITY  
Specialization: Computational Mechanics  
Thesis: *Monte Carlo Simulation of Recrystallization*

## WORK EXPERIENCE

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FEB 2021-PRESENT Associate senior lecturer  
DEPARTMENT OF MATERIALS SCIENCE AND APPLIED MATHEMATICS, MALMÖ UNIVERSITY, SWEDEN

APR 2020-JAN 2021 Application expert in image analysis  
LUNARC, LUND UNIVERSITY, SWEDEN

APR 2019-MAR 2020 Postdoctoral researcher  
DEUTSCHES ELEKTRONEN-SYNCHROTRON (DESY), HAMBURG, GERMANY  
I worked at the Swedish high-energy materials science beamline P21.2 at the PETRA III synchrotron at DESY. My main responsibility were to implement tomography and grain resolved diffraction (3DXRD and related techniques) at the beamline. This included developing workflows for data acquisition and analysis, commissioning of equipment, and supporting users during experiments.

FEB 2013-MAR 2019 PhD student  
DIVISION OF SOLID MECHANICS, LUND UNIVERSITY, SWEDEN

## AWARDS AND GRANTS

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2013 - Multiple successful beamtime applications (ESRF, PETRA III, Max IV, CHESS)  
2020 Vinnova: 3D texture analysis for mechanical properties optimization of rolled aluminium (co-applicant)

2019 Vinnova: Analysis of strain age cracking using tomography and 3D-XRD (co-applicant)

2017 The Sandvik award in mechanics of materials

2016 Royal Physiographic Society, travel grant

2013 SeSe, travel grant

## TEACHING EXPERIENCE

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2012-2019	Teaching assistant in the following courses at Lund University: Engineering Mechanics, Solid mechanics (basic course for mechanical engineers), Finite element method, Finite element method – nonlinear systems. Supervision of 3 master theses and 2 bachelor theses.
2010-2012	Teaching assistant, Java programming.

## PUBLIC OUTREACH

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2020	PETRA III Science Seminar
2019	Interviews in Vetenskapsradion and Ny Teknik News articles in forskning.se, Vetenskapens värld (TV), Voister, Elektroniktidningen

## OTHER MERITS

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FEB 2017-JAN 2019	PhD student representative, board of the Department of Construction Science, Lund University
2013	Organizing Committee, Svenska Mekanikdagar
2009-2012	Math tutor, Mattecentrum Lund

## TECHNICAL SKILLS

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PROGRAMMING LANGUAGES:	Python, Matlab, Fortran, C++
IMAGE PROCESSING AND ANALYSIS:	ImageJ/Fiji, TomoPy, Fable, PyFAI, LaueTools, Paraview
OTHER:	L <sup>A</sup> T <sub>E</sub> X, Linux, Mac OS, git, Microscopy (optical, SEM, and FIB)

## LANGUAGES

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SWEDISH:	Native
ENGLISH:	Fluent
GERMAN:	Basic