

# Johan Svård

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*With a solid background in mathematical statistics and a deep interest in machine learning, I am a creative problem solver passionate about deriving information from data in order to solve important problems.*

## Education

- 2012–2017 **PhD Degree, Lund University, Centre for Mathematical Sciences.**  
PhD degree in mathematical statistics, focused on spectral estimation, sparse modeling and general statistical signal processing.
- 2012–2015 **Licentiate Degree, Lund University, Centre for Mathematical Sciences.**  
Licentiate degree in mathematical statistics, focused on spectral estimation, sparse modeling and general statistical signal processing.
- 2007–2012 **Master in Industrial Engineering and Management, Lund University.**  
Specialization in mathematical modeling and financial statistics.

## Work Experience

- 2018– **Postdoctoral researcher, Lund University, Centre for Mathematical Sciences.**
- PostDoc in mathematical statistics primarily focused on statistical signal processing and machine learning.
  - Published 12 journal papers in top-tier journals and more than 30 conference papers.
  - Collaborations with several high tech companies, helping them with mathematical modelling, statistical signal processing and machine learning.
  - Co-supervisor for 2 PhD-students and supervisor/examiner for more than 10 Master students.
  - Lecturer in mathematical statistics courses.
- 2018– **Computer vision project at Spectronic Medical.**
- Developing deep learning methods for prostate localization in MR images.
  - Developing algorithms in NiftyNet and Python.
  - Validation and testing of the algorithms.
- 2018– **Co-Founder and Algorithm Developer/Data Scientist, VoiceDiagnostic.**
- Analyzing voice data in order to detect early stages of different deceases.
  - Developed machine learning algorithms, together with more traditional audio processing methods.
- 2017– **Co-Founder and Data Scientist, Medotemic.**
- Collecting sensory data from smartphones for gait analysis.
  - Cleaning, analysing, and preparing the raw data.
  - Developed machine learning algorithms for data analysis.
  - Advanced data processing and feature selection.
- 2017– **Consultant in machine learning, mathematical modeling, and statistics.**
- Involved in several projects helping both big multinational companies as well as smaller local firms in machine learning and statistical signal processing.
  - Experienced in working in a large range of industries with stakeholders on all levels.
  - Tailoring solutions to meet specific business needs.

- 2012-2017 **PhD-student at Lund University, Centre for Mathematical Sciences.**
- Focused on sparse modeling in signal processing.
  - Thesis spanned a large range of different topics; from finding periodicities in DNA to multidimensional sinusoid estimation.
  - The thesis was based on 9 journal papers all published in top-tier journals.
- 2005-2006 **Petty Officer Second Class, Swedish Navy.**
- Part of the Command Control System on HMS Härnösand, Visby-class Corvette.
  - Educated at the SSS (Naval Battle School).
  - Leadership training and education.

## Awards and Grants

- Grant Received the "Individrörlighet och artificiell intelligens"-grant, 2018.
- Grants Received more than 200 000 SEK in research grants during PhD studies.
- Award Best recruit in the Swedish Navy, 2006
- Award Trelleborg AB 50 year foundation, 10 000 SEK for excellent grades.
- Award Berzeliusdagarna at the Royal Institute of Technology, Stockholm

## Computer skills

- Basic SQL, Bash
- Intermediate NiftyNet, R
- Advanced MATLAB, Python, Keras, Tensorflow, Pandas

## Languages

- Swedish Native
- English Native
- German Intermediate