# MartinSöderén

Master of Science in Computer Science and Engineering

#### contact

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#### languages

Swedish - mother tongue English - fluent German - basic French - basic

### programming

C++ Python Java LATEX

#### **Interests**

Programming, open source, hardware, electronics, parallel programming, clusters, HPC, algorithms, Linux, 3D design, milling, lathing, welding, snowboarding and motorcycles.

#### **Education**

2011-Now	M.Sc in Computer Science and Engineering	Linköping University
2009-2010	Engineering preparatory year	KTH Royal Institute of Technology
2006-2009	Social studies with major in economics	Blackebergs gymnasium

## **Experience**

2016-2017	CERN, Geneve Technical student	Student program
08-12 2016	Linköping University, Linköping Software developer for AlICS	Summer job
08-12 2015 08-12 2014	<b>Linköping University, Linköping</b> Course assistant in Perspectives in Computer Science and Computer Engineering	Part time
06-08 2015	<b>SAAB, Linköping</b> Software developer	Summar job
06-08 2015 06-08 2014	<b>Linköping University, Linköping</b> Software developer	Summer job
11-12 2014	<b>Linköping University, Linköping</b> Course assistant in Introduction to design and productdevelopment	Part time
06-08 2014 06-08 2013	Cilay Miaragyatama Stackhalm	Curananiah
00-08 2011	Silex Microsystems, Stockholm Process operator working with photolithography	Summer job
2008-2011	Statoil, Stockholm Shop assistant	Part time

#### **Activities**

2014-2015	<b>M-verkstan</b> Auditor	Linköping University
2012-2013	Elith Racing(now LiU Formula Student) Vice President	Linköping University
2011-2013	Elith Racing(now LiU Formula Student) Head of electronics division	Linköping University
2011-2013	<b>M-verkstan</b> Accountant	Linköping University

## **Publications**

03-09 2017	CERN, Geneve Online Transverse Beam Instability Detection in the LHC High-Throughput Real-Time Parallel Data Analysis	Master thesis
03-05 2017	<b>CERN, Geneve</b> Usage of the Transverse Damper Observation Box for High Sampling Rate Transverse Position Data in the LHC	IPAC paper
03-05 2017	<b>CERN, Geneve</b> Online Bunch by Bunch Transverse Instability Detection in LHC	IPAC paper
01-05 2015	SAAB, Linköping Development of a quadratic programming solver for model predictive control	Bachelor thesis

## **Private Projects**

06-09 2017	<b>DataVisualizer</b> Real-time plotting library which uses the new Vulkan API
04-09 2017	<b>ConcurrentDataSharer</b> Publish-subscribe pattern middleware for easy data sharing
01-06 2017	<b>VideoEditor</b> Video editor that is based purely on Python scripting
01-06 2016	<b>FPGAComputer</b> Complete computer implemented in VHDL
01-06 2016	<b>3DFileManager</b> A 3D file manager implemented in OpenGL
08-12 2015	<b>physM</b> Easy to use physics engine implemented in Python
08-12 2015	matLib A barebone matrix/vector library