

Mats Nilsson

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Work Experience

- Mar 2020 – current | **Software Developer** Zenseact/Zenuity, Gothenburg
Developed an image processing component in C++ and CUDA using classical methods for detecting general objects on or near the road. The component was part of a software stack for autonomous vehicles and therefore had strict requirements on performance, runtime and standard compliance.
- Aug 2018 – Mar 2020 | **Software Developer** SICK IVP, Linköping
Full stack developer for a 3D line camera called TriSpector. Work included everything from fixing things in the low level Linux kernel domain, developing fast machine vision algorithms in C++ and making them easy to use in a graphical user interface written in Java. Partly responsible for maintaining DevOps features like build servers, git migration and Docker images.
- Aug 2016 – Jan 2017 | **Course assistant** Department of Computer and Information Science, Linköping Uni.
Teaching assistant in an algorithms and data structures course in C++ for third year university students. I held classroom lessons, computer labs and graded assignments.

Education

- Jan 2018 – Jun 2018 | **Master Thesis** Saab Dynamics, Linköping
Developed a building reconstruction Markov chain Monte Carlo-algorithm written in C++ with OpenCV for improved geometric accuracy of buildings in digital height models.
- Feb 2017 – Jun 2017 | **Study Abroad Semester** Auckland University of Technology, New Zealand
Took courses in real time systems, data mining and machine learning, artificial intelligence and natural language processing.
- Aug 2013 – Aug 2018 | **M.Sc. Applied Physics and Electrical Engineering** Linköping University
The courses provided depth and breadth in mathematics, physics and electrical engineering while doing advanced problem solving alone and in teams. Specialized with a master in signal and image processing.

Skills

- Languages** C++, Python, CUDA, Bash, C#
Tools Git, Docker, Bazel, Bitbake, Yocto, SVN
OS Good knowledge in multiple Linux distributions as well as Microsoft Windows

Languages

- Swedish** Native tongue
English Highly proficient in both written and spoken English