

Fredrik Gustafsson

M.Sc. STUDENT IN ELECTRICAL ENGINEERING

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- I am an engineering student whose main interests include mobile robotics, computer vision, deep learning and Bayesian filtering. I aim to contribute to the development of fully autonomous vehicles and hope to experience the day when we can safely say:

“Do you remember when people used to get killed in traffic?”



Education

Stanford University

Sep. 2016 - Jun. 2017

GRADUATE EXCHANGE STUDENT IN ELECTRICAL ENGINEERING [4.15/4.30]

- Coursework included deep learning, Bayesian filtering and optimal control.

Linköping University

Aug. 2013 - Jun. 2018

MASTER OF SCIENCE IN ELECTRICAL ENGINEERING | BACHELOR OF SCIENCE IN APPLIED PHYSICS AND ELECTRICAL ENGINEERING

- Master's profile: Control and Information Systems.

Please see LinkedIn for complete coursework.

Recent Projects

SMAUGS - Autonomous Minesweeping System (Ground Vehicle & Drone)

Sep. 2017 - Dec. 2017

COURSE PROJECT AT LINKÖPING UNIVERSITY | C++, PYTHON, ROS

Object Detection for Autonomous Driving - TensorFlow Implementation of SqueezeDet

Aug. 2017 - Sep. 2017

PERSONAL PROJECT | PYTHON, TENSORFLOW

Semantic Segmentation for Autonomous Driving - TensorFlow Implementation of ENet

Aug. 2017 - Sep. 2017

PERSONAL PROJECT | PYTHON, TENSORFLOW

ROSperino - Autonomous/Web Controlled RC Car

Jun. 2017 - Present

PERSONAL PROJECT | PYTHON, ROS, HTML, JAVASCRIPT

The SE-Sync Algorithm for Pose-Graph SLAM

May 2017 - Jun. 2017

COURSE PROJECT AT STANFORD UNIVERSITY | C++, ROS, MATLAB

Neural Image Captioning for Intelligent Vehicle-to-Passenger Communication

Jan. 2017 - Mar. 2017

COURSE PROJECT AT STANFORD UNIVERSITY | PYTHON, TENSORFLOW

Rasperino - Autonomous/Web Controlled Raspberry Pi & Arduino Robot

Jun. 2016 - Aug. 2016

PERSONAL PROJECT | PYTHON, C, HTML, JAVASCRIPT

Spider Pig - Autonomous Hexapod Robot

Jan. 2016 - Jun. 2016

BACHELOR THESIS PROJECT AT LINKÖPING UNIVERSITY | C

Please see fregu856.com for further information.

Relevant Experience

Deep Learning Intern

Jun. 2017 - Aug. 2017

ZENUITY

Gothenburg, Sweden

- Developed a deep learning demo/test platform based on a standard 1/10 scale RC car.

Algorithm Engineer

Jun. 2016 - Aug. 2016

T ENGINEERING AB

Trollhättan, Sweden

- Developed a web tool for analysis and visualization of car engine sensor data for a fleet of test vehicles, using Python (Flask) and MySQL.

Mathematics Coach

Sep. 2014 - Present

LINTEK (STUDENT UNION)

Linköping, Sweden

- Member of a group holding weekly problem-solving sessions in first-year mathematics, open to all students at Linköping University.

Teaching Assistant

Aug. 2014 - Dec. 2015

LINKÖPING UNIVERSITY (DEPARTMENT OF MATHEMATICS)

Linköping, Sweden

- Teaching assistant in linear algebra and introductory calculus. Led problem-solving sessions and graded hand-in assignments.

Skills

Software (advanced) Python (NumPy, TensorFlow, Flask), C/C++, ROS, MATLAB.

Software (basic) SQL, HTML, \LaTeX , Linux, Git, Simulink, JavaScript, Scheme.

Languages Swedish, English.

Other Swedish driver's license (B).