

LUDVIG DILLÉN (UPDATED 2023)

Lund, Sweden

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EDUCATION

Lund University

Ph.D. Student in Applied Mathematics

Project: Revisiting data associations for large-scale mapping.

Lund, Sweden

2023/11 – present

Linköping University

Industrial Engineering and Management - GPA: 4.92 (max 5.00)

Bachelor profile: Electrical Engineering; Master profile: Computer Vision and Signal Analysis

Linköping, Sweden

2018/08 – 2023/10

École Polytechnique Fédérale de Lausanne

Exchange semester

Lausanne, Switzerland

2021/08 – 2022/02

COURSEWORK / SKILLS

- | | | | |
|-------------------------------|----------------------------|-------------------------|------------------------------|
| • Signal and Image Processing | • Deep Learning | • Mathematical Modeling | • Statistics and Stochastics |
| • Computer Vision | • Point Cloud Registration | • Autonomous Vehicles | • Financial Mathematics |

PROJECTS

Bachelor Thesis | Autonomous Vehicles in Python and C

2021/01 – 2021/06

- Constructed a small autonomous car and won the final competition.

Diffuser Cam | Image Processing in Python

2021/11 – 2022/01

- Reconstructed images from lensless camera input with a successful team at EPFL.  [Source Code](#)

Master Thesis | Point Transformer for Alignment Classification with PyTorch

2023/03 – 2023/10

- Detecting and measuring errors in point cloud registration.

INTERNSHIP

Arriver/Qualcomm

Linköping, Sweden

Feature Engineer

- **First summer (2021/06 – 2021/08):** It involved visualizing and creating a toolbox for CNN statistics.
- **Second summer (2022/06 – 2022/08):** We used a CNN for semantic segmentation of restricted areas, curb edges, and snow edges, which have been integrated into the product, set to be deployed in vehicles.

TECHNICAL SKILLS

Languages: Python, Matlab, C++, Java, R

Technologies/Frameworks: PyTorch, L^AT_EX, Git, Visual Studio Code, PowerPoint, Excel

WORK EXPERIENCE

Linköping University

Linköping, Sweden

Amanuensis at the Computer Vision Laboratory (CVL)

2022/08 – 2023/06

- I taught in several signal and image processing courses and gave feedback to bachelor thesis reports.
- My research was within LiDAR SLAM for forest terrains in the academic-industry collaboration Smart Twin by Visual Sweden. The work focused on outlier correction in the point cloud registration chain, an interesting topic I delve deeper into in my master's thesis.
- I participated in weekly seminars and meetings with the lab, learning more about computer vision as well as its research landscape and industrial applications.

Teaching Assistant

2019/08 – 2021/06

- **Economic Analysis: Economic Theory (2020/10 – 2021/06):** I helped students during lessons, held seminars, and constructed/graded both homework and exams.
- **Foundation Course in Mathematics (Fall of 2019 and 2020):** I provided feedback on examination assignments and assisted students with mathematics exercises.
- **Linear Algebra (2019/09 – 2019/12):** I held interactive lectures about the fundamentals of linear algebra for first-year students.