

CV

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1 Professional Experience

2018–2024 **PhD Student**, *Department of Statistics, Lund University*

2 Education

2018–2024 **PhD in statistics**, *Department of Statistics, Lund University*

Title: “Optimization and Algorithms in Sparse Regression”

Supervisors: Jonas Wallin and Malgorzata Bogdan

2016–2018 **Bachelor’s degree in statistics**, *Department of Statistics, Lund University*

Title: “eulerr: Area-Propotional Euler Diagrams with Ellipses”

Supervisor: Peter Gustafsson

3 Publications

3.1 Conference and Journal Articles

Larsson, J., Klopfenstein, Q., Massias, M., & Wallin, J. (2023). [Coordinate descent for SLOPE](#). In F. Ruiz, J. Dy, & J.-W. van de Meent (Eds.), *Proceedings of the 26th international conference on artificial intelligence and statistics* (Vol. 206, pp. 4802–4821). PMLR.

Larsson, J., & Wallin, J. (2022). [The Hessian screening rule](#). In S. Koyejo, S. Mohamed, A. Agarwal, D. Belgrave, K. Cho, & A. Oh (Eds.), *Advances in neural information processing systems 35* (Vol. 35, pp. 15823–15835). Curran Associates, Inc.

Moreau, T., Massias, M., Gramfort, A., Ablin, P., Bannier, P.-A., Charlier, B., Dagr eou, M., Tour, T. D. la, Durif, G., Dantas, C. F., Klopfenstein, Q., Larsson, J., Lai, E., Lefort, T., Mal ezieux, B., Moufad, B., Nguyen, B. T., Rakotomamonjy, A., Ramzi, Z., ... Vaiter, S. (2022). [Benchopt: Reproducible, efficient and collaborative optimization benchmarks](#). In S. Koyejo, S. Mohamed, A. Agarwal, D. Belgrave, K. Cho, & A. Oh (Eds.), *Advances in neural information processing systems 35* (Vol. 35, pp. 25404–25421). Curran Associates, Inc.

Larsson, J. (2021). [Look-ahead screening rules for the lasso](#). In A. Makridis, F. S. Milienos, P. Papastamoulis, C. Parpoula, & A. Rakitzis (Eds.), *22nd European young statisticians meeting - proceedings* (pp. 61–65). Panteion university of social and political sciences.

Larsson, J., Bogdan, M., & Wallin, J. (2020). [The strong screening rule for SLOPE](#). In H. Larochelle, M. Ranzato, R. Hadsell, M.-F. Balcan, & H.-T. Lin (Eds.), *Advances in neural information processing systems 33* (Vol. 33, pp. 14592–14603). Curran Associates, Inc.

Larsson, J., & Gustafsson, P. (2018). *A case study in fitting area-proportional Euler diagrams with ellipses using eulerr*. *Proceedings of International Workshop on Set Visualization and Reasoning*, 2116, 84–91.

3.2 Theses

Larsson, J. (2024). *Optimization and algorithms in sparse regression: Screening rules, coordinate descent, and normalization* [PhD thesis, Department of Statistics, Lund University].

Larsson, J. (2018). *Eulerr: Area-proportional Euler diagrams with ellipses* [Bachelor's thesis, Department of Statistics, Lund University].

4 Teaching

4.1 Course Development

2020–2023 Data Visualization, *Department of Statistics, Lund University*

4.2 Instructor

2020–2023 Data Visualization, *Department of Statistics, Lund University*

2019–2021 Statistics: Basic Course, *Department of Statistics, Lund University*

4.3 Teaching Assistant

2021 Introduction to R Programming, *Department of Statistics, Lund University*.

2019–2021 Statistics for Fire Engineers, *Department of Statistics, Lund University*.

2019–2020 Data Mining and Visualization, *Department of Statistics, Lund University*.

2019 Artificial Intelligence and Deep Learning, *Department of Statistics, Lund University*.

5 Supervision

2023 Bachelor's Thesis, *Department of Statistics, Lund University*.

Student: Elias Gullberg

Title: Weather Factors and E. coli Concentration in Barnviken, Malmö – A Linear Mixed Model Approach

2023 Bachelor's Thesis, *Department of Statistics, Lund University*.

Students: Marcus Stolz, Jonathan Christopher

Title: Exploring the Impact of Pseudo and Quasi Random Number Generators on Monte Carlo Integration of the Multivariate Normal Distribution

2022 Master's Thesis, *Data Analysis and Business Analytics, Lund University*

Students: Gustavo Lemos Borba, Stella Sofia Sologaistoa Betancourt

Title: Interactive Network Visualization of Insurance Portfolios

2019–2020 Google Summer of Code

Students: Qincheng Liu (2019), Akarsh Goyal (2020)

6 Referee Service

- 2024 ICML, Computo
- 2023 Journal of Computational and Graphical Statistics
- 2022 NeurIPS, ICML
- 2021 NeurIPS

7 Comittee Service

- 2020–2022 Statistical Learning Seminar Series, *Main Organizer*
<https://statistical-learning-seminars.github.io/>

8 Software

- SLOPE** Generalized linear models penalized with the sorted L1 norm
Author and maintainer
R package (<https://CRAN.R-project.org/package=SLOPE>)
- benchopt** Reproducible, efficient and collaborative optimization benchmarks
Contributor
Python package (<https://benchopt.github.io>)
- eulerr** Area-proportional Euler diagrams with ellipses
Author and maintainer
R package (<https://CRAN.R-project.org/package=eulerr>)

9 Contracted Work

- 2021 **WHO Antimicrobial Resistance Dashboard**
Contracted work to develop and deploy a visualization dashboard for WHO's Antimicrobial Resistance team in Europe.