

CV

Johan Larsson

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 publons.com/a/1299032/

1 Education

1.1 Degrees

- 2018 – now** **PhD in Statistics**, *Department of Statistics, Lund University*
I am currently enrolled in the PhD program at the Department of Statistics at Lund University. My supervisor is Jonas Wallin, associate senior lecturer at the department.
- 2018** **Bachelor's Degree in Statistics**, *Lund University*
I developed an algorithm for creating area-proportional Euler diagrams using ellipses. This work also resulted in a conference paper and oral presentation at the SetWR conference in Edinburgh.
- 2015 – 2017** **Master's Degree in Medical Science**, *Lund University*
In my masters thesis I designed and piloted a randomized controlled trial.
- 2011 – 2014** **Bachelor's Degree in Physical Therapy**, *Lund University*
For my bachelor thesis, me and my co-author traveled to Tokyo to interview physical therapists about their professional role and use of technology.

1.2 Courses

- 2020** **Convex Optimization I**, *7.5 ECTS, Lund University*
Course Design in Higher Learning, *4 ECTS, Lund University*
Advanced Bayesian Learning, *7. ECTS, Stockholm University*
- 2019** **Sequential Monte Carlo Methods**, *6 ECTS, Uppsala University*
Teaching in Higher Education, *4 ECTS, Lund University*
Mathematical Statistics: Probability Theory, *7.5 ECTS, Lund University*
Statistical Inference, *15 ECTS, Swedish Network for Graduate and Postgraduate Education in Statistics, Sweden*

- Statistics: Multivariate Analysis**, 7.5 ECTS, Lund University
- 2018** **Data Mining and Visualization**, 7.5 ECTS, Lund University
Linux Development Environment, 7.5 ECTS, Umeå University
Statistical Methods with R, 7.5 ECTS, Karolinska Institute
- 2017** **Statistics: Bayesian Methods**, 7.5 ECTS, Lund University
Statistics: Probability and Inference Theory, 7.5 ECTS, Lund University
Statistics: Special Assignment, 15 ECTS, Lund University
Statistics: Econometrics, 7.5 ECTS, Lund University
Statistics: Time Series Analysis, 7.5 ECTS, Lund University
Statistics: Statistical Theory, 7.5 ECTS, Lund University
Statistics: Sampling Techniques, 7.5 ECTS, Lund University
- 2016** **Statistics: Basic Course**, 30 ECTS, Lund University
- 2014 – 2015** **Summer Research School**, 18 ECTS, Faculty of Medicine, Lund University
 I worked as a research assistant at a specialized clinic for pain rehabilitation and presented a poster at EFIC in 2015 and IASP in 2016.
- 2013 – 2014** **Summer Research Scholarship**, 15 ECTS, Faculty of Medicine, Lund University
 As a part of a stipend, I undertook a course in basic academic knowledge.

2 Work Experience

- 2018** **Google Summer of Code**, *The R Project for Statistical Computing*
 A project supervised by Toby Dylan Hocking and Michael Weylandt wherein which I translated the incremental stochastic gradient algorithm SAGA to R and implemented it to work for generalized linear models, such as Gaussian (univariate and multi-task), logistic (binomial and multinomial), and Poisson.
- 2017 – 2018** **Physical Therapist**, *The Department of Orofacial Pain and Jaw Function, Malmö University*
 Clinical work and quantitative assessment of sensory function.
- 2014 – now** **Physical Therapist**, *Vårdcentralen Södra Sandby, Region Skåne*
 Clinical work at a primary care center in southern Skåne.

2.1 Research

2015 – 2018 Research Assistant, *SMIL*

SensoriMotor Integration Lund (SMIL) was a collaborative effort between Lund University, Skåne University Hospital, Malmö University, and Umeå University, in which we are assessing the utility of a gym-based treatment for patients with persistent neck pain.

2015 Research Assistant, *The Department of Pain Rehabilitation, Skåne University Hospital*

Together with supervisors Eva-Maj Malmström and Hans Westergren I studied patients with longstanding whiplash-associated disorders, which resulted in one publication and two poster presentations.

2014 Research Assistant, *Department of Clinical Sciences, Lund University*

As part of a research stipend from the Faculty of Medicine at Lund University, I – under supervision of Eva-Ekval Hansson and Michael Miller – studied the gait of dizzy, elderly patients. This work resulted in two publications.

2.2 Teaching

2016 – 2018 Teaching Assistant, *Department of Physiotherapy, Lund University*

I served as a teaching assistant for students at the program of medicine.

2.3 Supervision

2017 – 2019 Assistant Supervisor, Bachelor's Thesis, *The Department of Orofacial Pain and Jaw Function, Malmö University*

Supervision of two students at undergraduate level for a project regarding exercise for neck and jaw pain.

2017 – 2018 Assistant Supervisor, Master's Thesis, *The Department of Orofacial Pain and Jaw Function, Malmö University*

Supervision of two students at master's level for a project about biofeedback and posture.

2.4 Reviewing Duties

- Gait & Posture (ISSN: 0966-6362)
- Journal of Clinical Interventions in Aging (ISSN: 1178-1998)
- Spine (ISSN: 0362-2436)

- Archives of Physical Medicine and Rehabilitation (ISSN: 0003-9993)

See publons.com/a/1299032 for additional information.

2.5 Miscellaneous

2017 **Network Analysis**, *SBU, Stockholm, Sweden*

2016 **Conducting Systematic Reviews**, *HTA-0, Malmö, Sweden*

3 Publications

3.1 Articles

- [1] **J. Larsson**, H. Westergren, B. Häggman-Henrikson, A. Ilgunas, A. Wänman, and E.-M. Malmström, “The feasibility of gym-based exercise therapy for patients with persistent neck pain,” *Scandinavian Journal of Pain*, vol. 20, no. 2, pp. 261–272, Apr. 2020, ISSN: 1877-8879. DOI: [10.1515/sjpain-2019-0085](https://doi.org/10.1515/sjpain-2019-0085).
- [2] S. Åkerblom, **J. Larsson**, E.-M. Malmström, E. Persson, and H. Westergren, “Acceptance: A factor to consider in persistent pain after neck trauma,” *Scandinavian Journal of Pain*, vol. 19, no. 4, pp. 733–741, 2019, ISSN: 1877-8879. DOI: [10.1515/sjpain-2019-0021](https://doi.org/10.1515/sjpain-2019-0021).
- [3] **J. Larsson**, “Mapping physical therapy research: The geographical affiliations and methodological quality of 2,959 randomized controlled trials,” *Physiotherapy Theory and Practice*, vol. 34, no. 9, pp. 723–729, Jan. 2018, ISSN: 1532-5040. DOI: [10.1080/09593985.2018.1423657](https://doi.org/10.1080/09593985.2018.1423657).
- [4] H. Westergren, **J. Larsson**, M. Freeman, A. Carlsson, A. Jöud, and E.-M. Malmström, “Sex-based differences in pain distribution in a cohort of patients with persistent post-traumatic neck pain,” en, *Disability and Rehabilitation*, vol. 40, no. 9, pp. 1085–1091, Jan. 2017. DOI: [10.1080/09638288.2017.1280543](https://doi.org/10.1080/09638288.2017.1280543).
- [5] **J. Larsson**, M. Miller, and E. Ekvall Hansson, “Vestibular asymmetry increases double support time variability in a counter-balanced study on elderly fallers,” *Gait & Posture*, vol. 45, pp. 31–34, Mar. 2016, ISSN: 0966-6362. DOI: [10.1016/j.gaitpost.2015.12.023](https://doi.org/10.1016/j.gaitpost.2015.12.023).
- [6] **J. Larsson**, E. Ekvall Hansson, and M. Miller, “Increased double support variability in elderly female fallers with vestibular asymmetry,” eng, *Gait & Posture*, vol. 41, no. 3, pp. 820–824, Mar. 2015, ISSN: 1879-2219. DOI: [10.1016/j.gaitpost.2015.02.019](https://doi.org/10.1016/j.gaitpost.2015.02.019).

3.2 Theses

- [1] **J. Larsson**, “Eulerr: Area-proportional euler diagrams with ellipses,” Bachelor Thesis, Lund University, Lund, Sweden, 2018.
- [2] —, “Gym-based exercise therapy for patients with persistent neck pain: A research protocol for a randomized controlled trial,” Master’s Thesis, Lund university, Lund, Sweden, Jan. 2017.
- [3] D. Najafi and **J. Larsson**, “The professional role and technology use among physical therapists in Tokyo: A qualitative interview study,” Bachelor Thesis, Lund University, Lund, Sweden, 2014.

3.3 Conference Papers

- [1] **J. Larsson** and P. Gustafsson, “A case study in fitting area-proportional Euler diagrams with ellipses using eulerr,” in *Proceedings of International Workshop on Set Visualization and Reasoning*, vol. 2116, Edinburgh, United Kingdom: CEUR Workshop Proceedings, Jun. 2018, pp. 84–91.

3.4 Conference Abstracts

- [1] **J. Larsson**, H. Westergren, and E.-M. Malmström, “Pain distribution after neck traumas: An analysis of 745 consecutive patients with persistent neck pain,” in *IASP 2016: The World Congress on Pain*, IASP, Ed., Yokohama, Japan, Sep. 2016.
- [2] H. Westergren, **J. Larsson**, and E.-M. Malmström, “Pain distribution in 745 consecutive patients with persistent pain after whiplash trauma,” in *EFIC 2015: Translating Evidence into Practice*, EFIC, Ed., Vienna, Austria, Sep. 2015.

4 Talks

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| 2020, May 8 | Statistical Learning Seminar
Presentation of my paper of the strong screening rule for SLOPE on the statistical learning seminar series. |
| 2018, June 18 | SetVR 2018
Presentation on the eulerr package for visualizing set data. |

5 Software

- SLOPE** Generalized Linear Models Penalized with SLOPE
<https://CRAN.R-project.org/package=SLOPE>

- sgdnet** Elastic Net-regularized Generalized Linear Models via the efficient SAGA algorithm
<https://github.com/jolars/sgdnet>
- eulerr** Area-Proportional Euler diagrams with ellipses
<https://CRAN.R-project.org/package=eulerr>
- qualpalr** Automatic generation of qualitative color palettes using color difference algorithms
<https://CRAN.R-project.org/package=tactile>