# Lars Ødegaard Bentsen

*Curriculum Vitae*


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## Education

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| 2023 (Expected) | **Ph.D. - University of Oslo,** Department of Technology Systems<br>Machine Learning Applied to Wind-Based Energy Production. |
| 2020 | **M.Eng. – Durham University**<br>General Engineering with Specialisation in New and Renewables/Electrical Engineering<br>First Class with Honours (77.3%), equivalent to A in Norwegian curriculum. |
| 2016 | **Upper Secondary – Oslo Commerce School**<br>6 (equivalent to A*) in all STEM related electives throughout. |

## Publications

**Bentsen, Lars Ødegaard**, Narada Dilp Warakagoda, Roy Stenbro, and Paal Engelstad (2022). " Spatio-temporal wind speed forecasting using graph networks and novel Transformer architectures." Applied Energy. Vol. 333, 2023. doi: 10.1016/j.apenergy.2022.120565

**Bentsen, Lars Ødegaard**, Narada Dilp Warakagoda, Roy Stenbro, and Paal Engelstad (2022). "Probabilistic Wind Park Power Prediction using Bayesian Deep Learning and Generative Adversarial Networks." Journal of Physics: Conference Series. Vol. 2362. No. 1. IOP Publishing, 2022. doi: 10.1088/1742-6596/2362/1/012005

**Bentsen, Lars Ødegaard**, Simionato, Riccardo; Wallace, Benedikte & Krzyzaniak, Michael Joseph (2022). “Transformer and LSTM Models for Automatic Counterpoint Generation using Raw Audio.”, Proceedings of the SMC Conferences. ISSN 2518-3672. doi: 10.5281/zenodo.6572847

**Bentsen, Lars Ødegaard**, Narada Dilp Warakagoda, Roy Stenbro, and Paal Engelstad (2022). "Wind Park Power Prediction: Attention-Based Graph Networks and Deep Learning to Capture Wake Losses.", Journal of Physics: Conference Series, vol. 2265, no. 2, p. 022035. IOP Publishing, 2022. doi:10.1088/1742-6596/2265/2/022035

## Awards and Additional Experience

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| DeepWind Conference 2022 | **Best Scientific Content Award:** Probabilistic Wind Park Power Prediction using Bayesian Deep Learning and Generative Adversarial Networks. |
| Durham University | **Awards:** Outstanding Achievement L4 Engineering<br>**M.Eng. R&D Project (Master’s Thesis):** Statistical machine learning to determine the socio-economic drivers behind EV charging in the Netherlands. Mark: First - 81%.<br>**L3 Engineering Design:** Developed medical laboratory equipment for testing light activated drugs for cancer treatment with an industry client, LightOx. One of few groups provided additional funding to further develop and prototype our design.<br>**Durham University Electric Motorsport:** Worked as an engineer with UK’s leading solar car team.<br>**Hatfield College Rowing Club:** Rowed for the first and second 8 in various regattas throughout the UK. |
| Oslo Commerce School | Academically selected to partake in a four-month exchange program to Bath, UK. |

## Work Experience

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| 2020 – 2023 (Expected Oct) | **University of Oslo – Doctoral Research Fellow** | Oslo, Norway |
| 2019 | **Vacational Studies – Director (joint):** Appointed to co-director of Vacational Studies for a few months, conducting interviews and making decisions on future directions for the company, before deciding to pursue work in more technical areas. | Newbury, UK |
| 2019 | **Vodafone – Summer Internship, Technology:** Developed a new tool for managing new product development projects within the customer program delivery team. | Newbury, UK |
| 2018 – 2019 | **Mentor Norway – Teacher**: Maths/Physics lessons for upper-secondary education. | Online |
| 2018 | **Oslo Summer School – Assistant Teacher** | Oslo, Norway |
| 2016 – 2019 | **Godt Brød – Certified Coffee Barista** | Oslo, Norway |
| 2014 – 2015 | **Lyn Ski – Ski Instructor:** Cross-country skiing instructor for young children. | Oslo, Norway |
| 2014 – 2015 | **Oksnøen Summer Camp – Staff** | Råde, Norway |

## Presentations

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| March 2023 (Expected) | **Lillestrøm Public Library:** Machine learning to optimise power production of offshore wind turbines |
| February 2023 (Expected) | **dScience Lunch Seminar – University of Oslo:** Using machine learning to improve energy utilisation for offshore wind turbines |
| November 2022 | **Nordic AI Meet 2022 Conference – Oslo, Norway:** Probabilistic Wind Park Power Prediction using Bayesian Deep Learning and Generative Adversarial Networks |
| June 2022 | **Sound and Music Computing Conference – Saint-Étienne, France:** Transformer and LSTM Models for Automatic Counterpoint Generation using Raw Audio |
| June 2022 | **Torque 2022 Conference – Delft, Netherlands:** Attention-Based Graph Networks and Deep Learning to Capture Wake Losses. |
| January 2022 | **DeepWind 2022 Conference – Trondheim, Norway:** Probabilistic Wind Park Power Prediction using Bayesian Deep Learning and Generative Adversarial Networks |

## Reviewer

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| 2023 | **Northern Lights Deep Learning (NLDL) Conference 2023 –** Tromsø, Norway |

## Personal Interests and Skills

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| Certifications | Driver's Licence Class AM and B<br>Boating Licence (Up to 15m)<br>Certified Underwater Hunter and Free Diver<br>PADI Open Water Diver |
| Interests | Guitar, Snowboarding/Skiing, Cooking, Travelling, Various water-based activities and always open to explore new interests! |