

# Curriculum Vitae

Ludvig Renbo Olsen (1991)

Education			
Cognitive Science, M.Sc.	Aarhus University, Aarhus	2019 - (exp. 2021)	Data science Machine learning  Developed the <b>R package</b> <i>xpectr</i> .
Artificial Intelligence, M.Sc.	University of Amsterdam	2018 - 2018 Ended before graduating.	Evolutionary Computing Multiagent Systems
Cognitive Science, B.Sc.  with minor (45 ECTS) in Computer Science.	Aarhus University, Aarhus	2015 - 2018	Lots of statistics, including frequentist and Bayesian <b>hierarchical/multilevel models</b> , using R and python.  <b>(Convolutional) neural networks</b> in TensorFlow as part of bachelor project.  Classic machine learning as a research assistant, using scikit-learn.  Developed the <b>R packages</b> <i>groupdata2</i> and <i>cvms</i> .  Course on cognitive neuroscience, including some practice with fMRI and EEG and analysis with SPM in MATLAB.  Introduction course to philosophy of humanoid robots (AI, human-robot interaction, value alignment, etc.).
Medie- og Sonokommunikation (Media and sonic communication.)	UCSyd, Haderslev	2013 - 2014 Ended before graduating (after 1 year).	Production of audio products.

Songwriting and Electronic Music Production	Engelsholm Castle – College for Arts and Music	2012 - 2013	
Communication & English, High school - HTX (Higher Technical Exam)	Hansenberg, Kolding	2008 - 2011	Average grade: 11,5 (American system GPA <sup>1</sup> : 3.93)
<b>Work</b>			
Machine Learning Researcher	UNSILO, Aarhus	2017 - 2018  ~25 hours per week	Natural Language Processing.  I built and applied a <b>Tensorflow</b> codebase, including recurrent and convolutional neural networks for text summarization and classification.  One of my main projects was to build a dataset and a classification model for finding definitions in scientific papers, while generalizing the code for rapid future model development in a multi-GPU setup.  Worked with Amazon EC2 instances.
Web designer		2009 - 2016, project based	Did websites for small local companies. Mainly used Wordpress, html and CSS. Did graphics in Adobe Photoshop and Adobe Illustrator.
Pedagogue Helper	Designbørnehus et Sanseslottet, Kolding	2011-2012	
Substitute	Dalby Mølle, Kolding	2007-2015	Packing of oatmeal and warehouse organising.

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<sup>1</sup> <https://www.foreigncredits.com/Resources/GPA-Calculator/Denmark>

<b>Publications</b>			
Book: Practical Machine Learning with R, chapters 4 and 5	Packt Publishing	2019	Applying neural networks and linear and logistic regression in R. Using balanced cross-validation for model selection.
<b>R packages</b>			
groupdata2 R package	Aarhus University, Aarhus	2016 -	<p>groupdata2 is an R package for grouping and splitting tabular data. It has methods for dividing up the data and for creating balanced folds and partitions, e.g. for cross-validation. It is well-documented and comes with multiple tutorials.</p> <p>Released on CRAN (the official R repository) with an MIT license:  <a href="https://cran.r-project.org/package=groupdata2">https://cran.r-project.org/package=groupdata2</a></p> <p>GitHub:  <a href="https://github.com/LudvigOlsen/groupdata2">https://github.com/LudvigOlsen/groupdata2</a></p>
cvms R package	Aarhus University, Aarhus	2016 -	<p>cvms (Cross-Validation for Model Selection) is an R package for easily cross-validating and evaluating regression and classification models.</p> <p>Released on CRAN with an MIT license:  <a href="https://cran.r-project.org/package=cvms">https://cran.r-project.org/package=cvms</a></p> <p>GitHub:  <a href="https://github.com/LudvigOlsen/cvms">https://github.com/LudvigOlsen/cvms</a></p>
xpectr R package	Aarhus University, Aarhus	2020-	<p>xpectr generates <i>testthat</i> unit tests for R. It aims to systematize and ease the process of building unit tests.</p> <p>GitHub:  <a href="https://github.com/ludvigolsen/xpectr">https://github.com/ludvigolsen/xpectr</a></p>

<b>Possibly relevant online courses</b>			
Neural Networks and Deep Learning	Coursera Andrew Ng deeplearning.ai	2017 Corresponding to 4 weeks with 3-6 hours per week.	Part 1 of Deep Learning specialization
Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization	Coursera, Andrew Ng, deeplearning.ai	2017 Corresponding to 3 weeks with 3-6 hours per week.	Part 2 of Deep Learning specialization
Deep Learning A-Z: Hands on Artificial Neural Networks	Udemy SuperDataScience Team	2017 ~22 hours	Overview of current techniques and architectures. Developing a good intuition. Hands-on exercises.
Developing innovative ideas for new companies: The first step in entrepreneurship	Coursera Dr. James V. Green University of Maryland	2014 Corresponding to 6 weeks with 3-5 hours per week.	
<b>Music CV</b>			
Official Release: Min Skyld	Navlebeskuer	2016	Single
Official Release: Trip To The Sewer	Ludvig Olsen	2014	Album Genre: Soundscape
Official Release: Breathing Seagull	Ludvig Olsen	2013	Album Genre: Soundscape  I recorded 2 seconds of a seagull scream and stretched it to ~30 min. of soundscapes. Got a four-star review in the national music magazine Gaffa.

Concert	Jelling Musikfestival, Jelling  (Music Festival)	2013	Singer-songwriter set
Concert	Faktorý, Reykjavik, Iceland	2013	Singer-songwriter set
Concert	KEX, Reykjavik, Iceland	2013	Singer-songwriter set