

Curriculum Vitae for Sigmund Slang

Personal information

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Born:	30.03.94	Nationality:	Norwegian

Summary

I am physicist from University of Oslo with a specialty on geophysical and seismological applications. During my thesis work I developed and applied convolutional neural networks to pre-stack seismic data for noise attenuation. I gained solid insight into machine learning tools such as Keras and Tensorflow as well as specialized tooling for seismology like SEG-Y-files and common seismic workflows. The skills I obtained from this work were further improved during my stay at Lundin Norway AS where I worked on similar projects enhancing and applying convolutional neural networks on post-stack seismic data. I have extensively used Python, making me highly proficient in this language, but I am also familiar with MATLAB, C++ and Bash.

Technical skills

Frameworks	TensorFlow, Numpy, Keras, segyIO, matplotlib, SciPy
Languages	Python, Matlab, Bash, C++
Tools	L ^A T _E X, Linux, Git

Education

2019	M.Sc. in Geophysics and Seismology from the Faculty of Mathematics and Natural Science, Department of Geosciences, University of Oslo. The title of my thesis was " <i>Attenuation of Seismic Interference Noise using Convolutional Neural Networks</i> " and was written in collaboration with CGG.
2014 – 2017	B.Sc. in Geology and Geophysics from the Faculty of Mathematics and Natural Science, Department of Geosciences, University of Oslo.

Professional experience

2020	Consultant at Expert Analytics AS
2019 – 2020	Consultant in Programming and Geophysics at Lundin Norway AS.
2019 – 2019	Summer intern at Inmeta, hired for specific project working with machine learning.
2015 – 2018	Annual summer job at Sommerskolen i Oslo teaching mathematics and programming to kids in age range 6-13 years old.

Languages

English	Fluent
Norwegian	Native speaker

Personal skills

Machine Learning	During my thesis work, as well as during my stay at Lundin Norway AS a key focus area revolved around developing and applying convolutional neural networks on seismic data for replication and enhancement of various seismic signal processes, such as de-noising and inversion. I have good experience with libraries such as TensorFlow and Keras.
Programming	Programming has been a key component through my studies and has become a field of passion. Many courses featured a programming aspect, but programming was used in courses which did not as well.
Seismic Data	Studying Geophysics has given me a good insight in seismic data and seismic signal processing. I have also gained experience in industrial workflows during my stay at CGG during my thesis work and Lundin as a consultant.

Some interests and hobbies

Misc	Gaming, Technology, Programming, Hiking
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Publications

Journal Title	Geophysical Prospecting <i>Attenuation of marine seismic interference noise employing a customized U-Net</i>
DOI	https://doi.org/10.1111/1365-2478.12893
Journal Title	Geophysics <i>A convolutional neural network approach to deblending seismic data</i>
DOI	https://doi.org/10.1190/geo2019-0173.1

Journal	81st EAGE Conference and Exhibition 2019
Title	<i>Using Convolutional Neural Networks for Denoising and Deblending of Marine Seismic Data</i>
DOI	https://doi.org/10.3997/2214-4609.201900844