

# **Curriculum Vitae for Sigmund Slang**

### **Personal information**

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### **Summary**

Born:

I hold a masters degree in Geophysics and Seismology from the University of Oslo, completed in 2019. I developed and applied convolutional neural networks to pre-stack seismic data for noise attenuation during my thesis work. I gained good insight in tools such as Keras, Tensorflow, Numpy as well as seismic data, SEGY-files and common seismic workflows. I further improved during my stay at Lundin Norway AS where I worked on similar projects applying neural networks, such as conditional GANs, on post-stack seismic data. I have mainly used Python and Matlab, but I am also familiar with C++ and Bash.

#### Technical skills

Frameworks TensorFlow, Numpy, Keras, segyIO, matplotlib, SciPy

Languages Python, Matlab, Bash, C++

Tools LATEX, 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 "Attenuation of Seismic Interference Noise using Convolutional Neural Networks" 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

Norvegian Native speaker

#### Personal skills

Machine	During my thesis work, as well as during my stay at Lundin Norway AS
Learning	a key focus area revolved around developing and applying convolutio-
	nal 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 throught 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

### **Publications**

Journal Geophysical Prospecting

Title Attenuation of marine seismic interference noise employing a custo-

mized U-Net

DOI https://doi.org/10.1111/1365-2478.12893

Journal Geophysics

Title A convolutional neural network approach to deblending seismic data

DOI https://doi.org/10.1190/geo2019-0173.1

expertanalytics.no

Journal 81st EAGE Conference and Exhibition 2019

Title Using Convolutional Neural Networks for Denoising and Deblending

of Marine Seismic Data

DOI https://doi.org/10.3997/2214-4609.201900844