

Nicklas Hansen

M.Sc. Eng. student and deep learning enthusiast

PERSONAL INFORMATION

<i>Date of birth</i>	02-11-1996	<i>Phone</i>	+45 61 26 46 82
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PROFESSIONAL EXPERIENCE

(2019 - present) Retune DSP

I help a team of engineers build and maintain deep learning pipelines for automatic speech recognition systems for embedded systems.

(2016 - present) Nordic Transition

I am currently responsible for maintaining an end-to-end data management platform that I developed for a career consultancy.

(2017 - 2019) Career Panorama

I acted as technical advisor in an early-stage startup aiming to provide a human-centric alternative to current HR systems. Primary responsibility was to enforce good software engineering practices and manage a student developer.

EDUCATION

(2019 - present) M.Sc. stud. — Technical University of Denmark (DTU)

M.Sc. Digital Media Engineering student. Current topics include reinforcement learning, advanced algorithms, machine learning and digital signal processing.

(2015 - 2018) B.Sc. — Technical University of Denmark (DTU)

B.Sc. Software Engineering. Studies focused on algorithms, machine learning, deep learning, AI, discrete mathematics and software engineering practices.

(2018) Summer Schools — High-Assured Autonomous Systems

Autonomous systems (theory and practice) at Tallinn Technical University, Estonia and Åbo Akademi, Finland.

(2018) Certificate — ISO 21500 Guidance on Project Management, Dansk Standard

I am certified in project management practices in accordance to ISO 21500.

(2017) Exchange — Nanyang Technological University (NTU), Singapore

Topics include computer vision, cryptography and large-scale software engineering.

PROJECTS

(2018) Retune DSP — *Voice Activity Detection in Noisy Environments*

Utilising novel deep learning techniques to increase robustness of low-complexity VAD for embedded systems in highly noisy environments.

(2018) Thesis: Rigshospitalet Glostrup — *Automatic Multi-Modal Detection of Autonomic Arousals in Sleep*

Multi-disciplinary study on the application of deep learning, digital signal processing and algorithms for automatic detection of biomarkers for sleep-related diseases in ECG and PPG signals.

(2017) SimCorp A/S — *Sentiment Analysis on Twitter For Stock Market Prediction*

Automated collection, processing and real-time analysis of tweets from Twitter for stock market prediction. Benchmark of various machine learning and deep learning techniques for natural language processing and sentiment analysis.

(2014) Independent — *Aradia (Game Development)*

I developed a real-time action puzzle game available for free on Blizzard Entertainment's Arcade platform. Involved implementation of a simple physics engine, AI and string compression algorithms.

TECHNICAL

Software Engineering

I am fluent in Python, Matlab and C#, all of which I use both academically and professionally. I am experienced in SQL, R, Maple, C, C++, Java, JavaScript and Jass/Galaxy. I have programmed since I was a kid and pick up new languages quickly. I use Git, Azure and Latex extensively and am comfortable with Linux.

Mathematical Modelling

I have a solid understanding of the design and analysis of advanced (sequential and parallel) algorithms and data structures and know how to develop efficient software at scale.

I work with digital signal processing in both Python and Matlab and I use PyTorch (Python) for deep learning but have experience with TensorFlow and Keras as well.

PERSONAL INTERESTS

As an engineer, I want to use my technical skills to build solutions that benefit society. I am highly supportive of innovation and have participated in DTU Skylab's Open Innovation challenge on several occasions.

References are given upon request