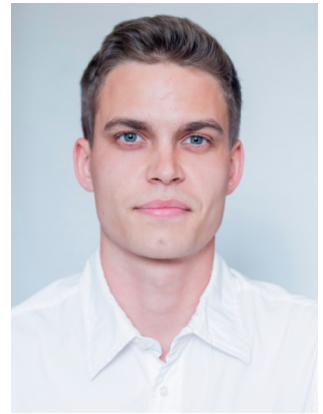


JOHANNES KRUSE

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Summary: I specialize in machine learning, natural language processing, and recommender systems. Throughout my coursework, volunteer involvement, and previous work I have become exceptionally structured, proactive, and solution orientated. I am a disciplined learner (Kaggle and Python enthusiast) who thrives being challenged and explore opportunities to continuously expand my competences.

EDUCATION

12/2021 – Present	Technical University of Denmark & Ekstra Bladet	Industrial Ph.D. Student	Kgs. Lyngby & Copenhagen, DK
<ul style="list-style-type: none">Project title: Responsible Recommender Systems for Danish News Publishing (RRS-DK)Courses: Deep Learning, Reinforcement Learning, Machine Learning Summer School, Advanced Topics in Machine Learning, Entrepreneurship in Technical ScienceDeveloped and implemented the core recommendation system for EkstraBladet.dk, improving user engagement and driving significant traffic growth for the site			
09/2018 – 04/2021	Technical University of Denmark	MSc Mathematical Modelling & Computation	Kgs. Lyngby, DK
<ul style="list-style-type: none">Courses: Machine Learning, Advanced Modelling, Time Series Analysis, Computational Data Analysis, Constrained Optimisation, Computational Data AnalysisInvolved in the Danish research project WriteReader by evaluating machine generated captions with Deep Learning using Deep Residual Networks and Convolutional Neural NetworksThesis: Deep learning for Natural Language Processing. Exploring the use of Knowledge Graph technologies with the objective of enriching word embeddings. Grade: 12			
09/2019 – 01/2020	Barcelona School of Informatics	Exchange Student	Barcelona, ES
<ul style="list-style-type: none">Courses: Deep Learning, Kernel-based Machine Learning and Multivariate Modelling, Human Language Engineering, and Data Warehousing			
09/2015 – 06/2018	Technical University of Denmark	BSc Biomedical Engineering	Kgs. Lyngby, DK
<ul style="list-style-type: none">Courses: Advanced Engineering Mathematics, Physics, General Chemistry, Human Biology, Human Diseases for Non-Clinicians, Cell and Tissue Biology, Medical ImagingThesis: Computational Neuroimaging. Investigation of transcranial magnetic stimulation variability in defined brain states by applying data analysis using Python programming. Grade: 12			
08/2017 – 12/2017	Rensselaer Polytechnic Institute	Exchange Student	New York, US
<ul style="list-style-type: none">Courses: Biomechanics, Biomedical Product Development, Skilled Performance & TrainingGained a valuable insight in the process and procedures of budgeting, fundraising, and meeting deadlines, as well as quickly learning how to adjust to new environments, cultures, and teaching styles			

PUBLICATION

- Johannes Kruse and Lars Kai Hansen. *Redegørelse om sundhedswearables og big data*. (2019), pp. 116–141.

STUDENTS

- Zhijian Feng, 2023, Technical University of Denmark & Ekstra Bladet
MSc thesis: *Using Image Information in Deep Learning-Based Recommender Systems for News*
- Magnus Waldemar Hoff Harder & Nikolaj Bach Meineche, 2023, Technical University of Denmark & Ekstra Bladet
BSc thesis: *Transformer-based News Recommendations: Leveraging User Click-History with Deep Learning*

WORK EXPERIENCE

04/2021 – 12/2021	Ekstra Bladet	Machine Learning Engineer	Copenhagen, DK
<ul style="list-style-type: none">Conducted comprehensive literature review regarding recommender systems focusing on personalized news recommendation and techniques of modelling and ranking of news and usersFacilitated multiple workshops with project stakeholders to ensure an understanding of the complex mathematical algorithm being implemented in production and an agreement of the project's goals and progressResponsible for model selection, framework development for model training and evaluation, and employing state-of-the-art recommendation systems for productions use at ekstrabladet.dk			
07/2020 – 09/2020	Infosys Limited	InStep Intern	Bangalore, IND
<ul style="list-style-type: none">Developed a framework for a conversational search component to existing enterprise search engineBuild an Artificial Intelligence driven application for Question Answering and Question Generation modules utilizing state-of-the-art machine learning algorithms			
01/2020 – 09/2020	Implement Consultant Group	Junior Consultant	Copenhagen, DK
<ul style="list-style-type: none">Part of the Data & Analytics team that supports various companies to become more data-driven by optimizing their value chainCode contributor to multiple text mining projects utilizing machine learning algorithms to extract and visualize topics within survey data and reduce the number of organizational documents			
09/2018 – 09/2019	AudienceProject	Data Analyst	Copenhagen, DK
<ul style="list-style-type: none">Programmed software in Python for structural sentences recognition enabling categorizing a document of more than 3.500 sentences in less than two secondsWorking independently with clients and as part of a team that collaborates with two of the major departments			
03/2018 – 09/2018	The Danish Ethics Committee	External Consultant	Copenhagen, DK
<ul style="list-style-type: none">Developed a working paper titled 'Privacy-by-Design' which examines the possibilities of enabling a citizen to secure complete control of their personal data stored in public spaces via technical meansFacilitated constructive discussions with leading scientists in the field of cryptography and academically communicated relevant information in a comprehensive format for the members of the Ethics Committee			
08/2016 – 06/2018	Technical University of Denmark	Teaching Assistant	Kgs. Lyngby, DK
<ul style="list-style-type: none">Clarify learning objectives and promote discussions of the syllabus. Courses: Calculus and Algebra 1 and 2Assisted professors in evaluating and grading mathematical assignments			
02/2016 – 05/2018	Novozymes	Student Assistant	Bagsvaerd, DK
<ul style="list-style-type: none">Calibrated and maintained laboratory equipment while identifying and implementing new ideas for optimization of calibration routines and proceduresOptimized and enhanced the work process of the full-size washing machine program in the Household Care division by implementing and streamlining the calibration routine from four to six washing machines			
08/2017 – 12/2017	Rensselaer Polytechnic Institute	Research Assistant	New York, US
<ul style="list-style-type: none">Performed population studies for the Cognitive Science Department, following rigorous scientific protocols and instructing subjects in the processes of the experiments			

VOLUNTEER

06/2018 – 08/2018	Engineering World Health	Expatriate Volunteer	Dolakha District, NP
<ul style="list-style-type: none">Stationed as an engineer in a remote hospital in the Himalayas, Nepal, for a duration of six weeksCooperated with the Ministry of Health of Nepal and the local hospital to contribute to FN's 2030 development goals of ensuring universal health benefits to all people around the world			

OTHER

IT Skills	Python, Git, R, Microsoft Office, SQL
Languages	Danish (Native) – English (Fluent) – Spanish (Intermediate)
Interests	Culture (Lived abroad in Greenland, Canada, United States), Climbing (certified rock-climbing instructor), Freediving (Completed an open-sea dive to 28 meters), Hiking (Almost hugged a wild bear)
Personal Skills	Leadership – Teamwork – Structured – Innovative – Initiative – Rational