



JACOB AARUP DALSGAARD

COMPUTATIONAL SOCIAL SCIENCE

SOCIALLY AND ENVIRONMENTALLY MOTIVATED RESEARCHER

I am very interested in the study of social interactions and how these can be leveraged to bring about change. I believe that the development of natural language processing (NLP) algorithms that can be used to infer the pragmatics of conversations represent the frontier in this field of research. My research will thus greatly expand our understanding of behavior in complex social interactions.

I have involved myself heavily in building NLP resources, being a contributor to the [Danish Gigaword project](#) and the co-creator of the [sentiment lexicon Sentida](#). These resources, I have used to study how pragmatics of conversational backchannelling shape interpersonal alignment. In my start-up, I investigated the potential for algorithms to monitor interactions on social media. Finally, I am deeply passionate about social and environmental sustainability having entered several competition with case-winning ideas, including scraping public reviews of attractions to model patterns in tourism for the [national Danish tourism agency](#) and building classifiers to detect abuses of cognitive biases related to [phishing emails for the Danish Business Authority](#).

COMPETITIONS

- [AU CHALLENGE - WINNER](#)
Aarhus University x [VisitDenmark](#)
- [CYBERSECURITY CHALLENGE - WINNER](#)
[Erhvervsstyrelsen](#)
- [AU SME CHALLENGE - WINNER](#)
Aarhus University x [myhouse](#)

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PROFESSIONAL EXPERIENCE

[2021-]

KMD A/S

STUDENT DATA SCIENTIST

- Developing REST API for downstream NLP tasks
- Maintaining models in production

[2020-22]

ValueFromText APS

CO-FOUNDER

- Outreach and fundraising
- Exploring Hatespeech detection
- Text summarization
- Dataset creation and annotation

[2020-21]

Systematic A/S

JUNIOR CONSULTANT / ANALYST

- Product quality and process improvement models
- Supporting CMMI certification
- Creating pipelines for statistical analyses

[2018-2019]

Aarhus University

UNDERGRADUATE RESEARCH ASSISTANT

- Preprocessing, anonymization of Danish text for Gigaword Project



EDUCATION

[2021-]

IT University of Copenhagen

DATA SCIENCE

Master's degree

- Algorithm design & machine learning
- Dataset creation

[2018-2021]

Aarhus University

COGNITIVE SCIENCE

Bachelor's degree

- Cognition & Behavior
- Computational modelling and Bayesian statistics
- Agent-based model on diversity and performance
- Transformers vs linguistically motivated features
- Conversational dynamics of dialogues
- Electives in Python, calculus & linear algebra



ACADEMIC ACHIEVEMENTS

PUBLICATIONS (PEER-REVIEWED)

- [SENTIDA: A New Tool for Sentiment Analysis in Danish](#)
- *Journal of Language Works* (2019)
- [The Danish Gigaword Project](#)
- *Proceedings of the 23rd Nordic Conference on Computational Linguistics* (2021)

INVITED TALKS

- [SENTIDA: A New Tool for Sentiment Analysis in Danish](#)
- *Invited talk at NLP workshop at Interacting Minds Centre Aarhus, Denmark, 2019*