

Thor Olesen

Software Engineer @ The Org



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Experience

Senior Software Engineer, Machine Learning, The Org. Jan 2021 - present

I work as a Software Engineer at The Org (a platform for companies), where I lead a distributed data team operating asynchronously in New York and Copenhagen. I built a **Scala** REST API to ship daily company recommendations on the platform computed in **Python** jobs I run on **AWS** Sagemaker for Machine Learning with results stored in **Postgres** and CI/CD in **Github Actions**. My main responsibility is putting recommendations into production, which helps improve the product and attract more users. I also build internal automation tools to ingest more company metadata and build out organizational charts from company positions. Finally, I have full responsibility for the data roadmap. I spend a lot of time evaluating different techniques to improve the quality of our recommendations. This usually entails running A/B tests that track how changes to our recommendations lead to improvements in our business KPIs. Thus, I feel very familiar with the work process of making a hypothesis, running an experiment, and validating my hypothesis. So far, I have increased the total number of companies being followed on the platform by over 40%, using frequent pattern mining in **Spark**. I've also increased the total number of monthly active users by over 20%, using Bayesian personalized ranking on our company feed. Finally, I've increased the total number of company page views by over 30%, using a hybrid recommender that performs matrix factorization on user page views (i.e., collaborative filtering) and computes cosine similarities in Numba between company features (i.e., content). Recently, I built a service that uses probabilities to automatically build org charts with 90% accuracy from lists of job titles. For data pipelines, I use Fivetran to extract and load all sources into a **Snowflake warehouse** where I use **DBT (SQL)** transformations to do data modeling.

Projects

Fasto Compiler, Compiler Construction (IPS), DIKU, UCPH. Spring 2021

Built a compiler for the Fasto language in F#, targeting MIPS assembly code.

Link: <https://github.com/TVA0/Fasto-Compiler>

Thesis, Evolutionary Planning on a World Model, REAL Lab, ITU. Spring 2020

Ran experiments to find models that enable evolutionary planning agents superior to popular model-free reinforcement learning methods. Links: Thesis, Paper, Code.

Education

MSc Computer Science, IT University of Copenhagen, Denmark, 3.85GPA. 2018–20

Specialization in Machine Learning. Study abroad at UC Berkeley to explore AI, Statistics, and Data Science. I worked as an Assistant Lecturer in Advanced Machine Learning (100 students). TA'd in over 20 courses and worked as a graduate research assistant to publish my thesis work.

BSc (double degree) Computer Science, University of Copenhagen. 2020–21

Specialization in programming languages. Got an A+ in Programming Language Design, A in Computer Systems, and B+ in Implementation of Programming Languages (Compilers).