Thor Olesen

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EXPERIENCE

The Org **Copenhagen, Denmark**
Machine Learning Engineer *Jan 2021 - Present*

- The Org is on a mission to make organizations more transparent by making organizational charts publicly available. As part of that journey, I work on improving the user experience through data-driven initiatives.
- Built a recommender service in **Scala** that is deployed as a Docker container with ECS and Fargate on **AWS**.
- Applied frequent pattern mining methods in Spark to improve companies suggested to follow.
- Curating new features and tags (i.e., feature engineering) to enrich company data, which will help find similar companies based on culture, and provide valuable insights to leaders from their favorite companies.
- Planning to predict structural changes in companies using temporal graph neural networks on past historical data of organizational charts that show the structure and relationships of companies and positions.

IT University of Copenhagen **Copenhagen, Denmark**
Assistant Lecturer *Aug 2020 – Dec 2021*

- Taught machine learning concepts and hosted exercise sessions for more than 100 students.

IT University of Copenhagen **Copenhagen, Denmark**
AI Research Assistant *Jun 2020 – Aug 2020*

- Showed how to do evolutionary planning on a learned model of a car racing environment.
- Researched, designed, and built different deep learning models in **PyTorch** to enable planning for car driving.
- Ran experiments on a large cluster to evaluate the efficiency of planning on all our differently trained models.
- Published a paper as first author to the proceedings of EvoStar 2021.

PROJECTS

Thesis *2020*

- Showed how to do model-based reinforcement learning with evolutionary planning on a learned model of a car racing environment that outperforms popular model-free reinforcement learning methods.
- Link to PyTorch code: https://github.com/two2tee/WorldModelPlanning

Advanced Machine Learning *2019*

- Showed how to play Atari Breakout with Deep Reinforcement Learning using reinforcement learning (Q-learning) and deep convolutional neural networks.
- Link to Python code in Google Colab using **TensorFlow**, Open AI Gym, Numpy, and Matplotlib: https://colab.research.google.com/drive/10XRqDVeQH29m90YsboQHNRdFkYMU-A3Q?usp=sharing

Fitness Machine Learning Project *2018*

- Showed how to predict muscle growth using an LSTM based on historical workout data.
- Link to part of the model code in **Python** using **Numpy, Pandas, Sklearn, Matplotlib, and Keras**: https://colab.research.google.com/drive/1aec4K8uZX3cRMzm3ZF5v1b3MSU63OyjX?usp=sharing

EDUCATION

IT University of Copenhagen **Copenhagen, Denmark**
MSc in Computer Science, ML Specialization *2018-20*
BSc in Software Development *2014-17*

UC Berkeley **Berkeley, California**
Study Abroad *2018-19*

University of Copenhagen **Copenhagen, Denmark**
BSc in Computer Science (double degree) *2017-18*