

Linus Ericsson

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EDUCATION

PhD/CDT in Data Science – University of Edinburgh, UK

Supervised by Tim Hospedales

From September 2018

I am currently in the first year of my PhD at the University of Edinburgh as part of the CDT in Data Science programme. I'm working on **latent domain discovery in self-supervised learning with a current focus on meta-learning approaches**.

Durham University – Durham, UK – Computer Science

September 2014 - June 2018

I studied for 4 years in Durham and completed an undergraduate and Master's degree in Computer Science.

EXPERIENCE

ARCTIC: A Fast Online Algorithm for Learning Additional Rewards in RL, Master's Thesis (University of Edinburgh)

Supervised by Tim Hospedales

June 2017 - PRESENT

We investigate the idea of online learning of an additional reward for reinforcement learning agents to complement the standard task-specific reward function. This provides two benefits: it alleviates the need for manual design of such rewards, and through a cross-domain training procedure it guides an agent toward a more domain-generalisable policy.

Playing Multiple Games with Deep Reinforcement Learning, Master's Thesis (Durham University)

Supervised by Magnus Bordewich and presented at Rising Stars Research Symposium 2018

June 2017 - PRESENT

We evaluate the efficacy of transfer, kickstarting and multi-task learning approaches. Our aim is to reduce the training time and increase the final score of agents playing multiple Atari games. Results show that we can speed up the training of agents through transfer and kickstarting. We also show that multi-task learning boosts the learning rate on one of four games, but at the cost of lower final scores across all games.

RESEARCH INTERESTS

Self-supervised learning
Generative Modelling
Bayesian Deep Learning
Reinforcement Learning
Algorithmic Composition

ACADEMIC MARKS

Durham University

| | |
|------------------------------|-----|
| Overall Master's | 80% |
| Machine Learning | 85% |
| Computer Vision | 87% |
| Theoretical Computer Science | 82% |

AWARDS

Certificate of Outstanding Achievement – for all years at Durham University.

Bronze Award for Best Poster – for undergraduate project 2016/2017.

SKILLS

Confident in Object-Oriented, Scientific Programming and Machine Learning as well as a strong theoretical background.

Using technologies like Python, PyTorch / TensorFlow, OpenCV, C++.

Teaching and Demonstrating, *Edinburgh/Durham*

September 2017 - PRESENT

I have undertaken tutoring, demonstrating and marking roles while studying both in Edinburgh and Durham. Courses I've taught include Introduction to Programming (in Python/Java), Introductory Applied Machine Learning and Theory of Computation.

Computer Vision Research Group, *Durham University*

June 2017 - August 2017

I worked with Professor Toby Breckon over a summer, developing dense stereo vision and visual odometry for robotics. I also had the chance to collaborate with the Centre for Vision and Visual Cognition on a project involving Brain-Computer Interfaces as an application of Deep Learning.

Composing Music using Machine Learning - *Undergraduate Project, Durham University*

Supervised by Steven Bradley

June 2016 - May 2017

The aim of my 3rd year project was to develop an interactive music composition system. Live MIDI input from the user formed the starting point for a genetic algorithm to generate possible continuations of the melody. Each individual in a population was evaluated using a Recurrent Neural Network trained on a large dataset of chord progressions.

LANGUAGES

Fluent in Swedish and English

Intermediate level in German and Spanish

HOBBIES

I'm very interested in music and have played in 2 bands as guitarist and lead singer. I write my own songs and have published songs on Spotify.