

# Linus Ericsson

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## EDUCATION

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### University of Edinburgh

Edinburgh, UK

*PhD in the Centre for Doctoral Training in Data Science*

*2019 - present*

My research is on **unsupervised representation learning** by learning from underlying structure in data rather than manual annotation. I am also interested in how traditional supervised learning can benefit from self-supervised methods, as the advantage of learning from labels diminishes.

**Supervisor:** Prof. Timothy M. Hospedales

### University of Edinburgh

Edinburgh, UK

*MSc(R) Data Science, Merit (68%)*

*2018 - 2019*

**MSc Project:** ARCTIC: A Fast Online Algorithm for Learning Additional Rewards in RL - We develop an RL meta-learning algorithm which alleviates the need for designing manual rewards, and guides an agent toward a more domain-generalisable policy.

**Supervisor:** Prof. Timothy M. Hospedales

### Durham University

Durham, UK

*MEng in Computer Science, First Class Honours (80%)*

*2017 - 2018*

**MEng Project:** Evaluating cross-domain and multi-task performance of Deep Reinforcement Learning across the Atari benchmark (Presented at the Rising Stars Research Symposium 2018)

**Supervisor:** Prof. Magnus Bordewich

### Durham University

Durham, UK

*BSc in Computer Science, First Class Honours (82%)*

*2014 - 2017*

**BSc Project:** Composing Live Music with Neural Networks and Genetic Algorithms (Bronze Award for Best Poster for undergraduate project)

**Supervisor:** Dr Steven Bradley

## PUBLICATIONS

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### How Well Do Self-Supervised Models Transfer?

Ericsson L., Gouk H. and Hospedales, T. M., *In CVPR, 2021, [arXiv:2011.13377](https://arxiv.org/abs/2011.13377)*

### Self-Supervised Learning: Introduction, Advances and Challenges

Ericsson L., Gouk H. and Hospedales, T. M., *Under review*

## WORK EXPERIENCE

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### Teaching Experience

Edinburgh & Durham, UK

*Tutoring, demonstrating and marking*

*2017 - present*

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I have undertaken tutoring, demonstrating and marking roles while at both Edinburgh and Durham University. This has included teaching undergraduate and postgraduate students in the following courses:

- Introductory Applied Machine Learning
- Introduction to Programming (in Python/Java)
- Computer Programming for Speech and Language Processing
- Theory of Computation.

### **Computer Vision Research Group**

**Durham, UK**

*Research internship at Durham University*

*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.

**Supervisor:** Prof. Toby Breckon

### **hedgehog lab**

**Newcastle, UK**

*Software development internship*

*2016*

I spent 8 weeks working for the app development company hedgehog lab where I learnt iOS and OS X native development. I gained valuable experience from working on a big client project and from creating in-house software to help with their development process.

## **SKILLS**

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- ★ Solid computer science foundation, with strong knowledge of algorithms, data structures, and programming languages.
- ★ Strong coding skills in Python, PyTorch, TensorFlow, Git, Bash, Slurm, LaTeX.
- ★ Experience with large-scale deep learning and working with compute clusters, training on datasets like ImageNet.
- ★ Excellent analytical, troubleshooting, and communication skills.
- ★ Writing papers for academic conferences.
- ★ Experience working in industry.