Yordan Hristov

Edinburgh, United Kingdom
+44(0)7746338692 | yordan.hristov@ed.ac.uk | yordanh.github.io

EDUCATION

University of Edinburgh — **Edinburgh, United Kingdom**
PhD, Robust Autonomy and Decisions group, IPAB — *Sept 2016 - June 2021*

My thesis focuses on the topics of Human-Robot Interaction through Physical Symbol Grounding and Disentangled Representation Learning with partial natural language supervision. The developed neuro-symbolic methods enhance and augment established models from the Deep Variational Inference literature.

- **Yordan Hristov** and Subramanian Ramamoorthy. Learning from demonstration with weakly supervised disentanglement. In *International Conference on Learning Representations*. ICLR 2021
- **Yordan Hristov**, Daniel Angelov, Michael Burke, Alex Lascarides, and Subramanian Ramamoorthy. Disentangled relational representations for explaining and learning from demonstration. In *Conference on Robot Learning*. CoRL 2019, ***Best paper runner-up***
- **Yordan Hristov**, Alex Lascarides, and Subramanian Ramamoorthy. Interpretable latent spaces for learning from demonstration. In *Conference on Robot Learning*. CoRL 2018
- **Yordan Hristov**, Svetlin Penkov, Alex Lascarides, and Subramanian Ramamoorthy. Grounding symbols in multi-modal instructions. In *Proceedings of the First Workshop on Language Grounding for Robotics*. ACL 2017
- **Yordan Hristov**, Emmanuel Kahembwe, Alex Lascarides, and Subramanian Ramamoorthy. Symbol grounding and program induction using multi-modal instructions, visual cues and eye tracking. In *Demo Track at Neural Information Processing Systems*. NeurIPS 2017
- Daniel Angelov, **Yordan Hristov**, Michael Burke, and Subramanian Ramamoorthy. Composing diverse policies for temporally extended tasks. IEEE RA Letters 2020
- Michael Burke, **Yordan Hristov**, and Subramanian Ramamoorthy. Hybrid system identification using switching density networks. In *Conference on Robot Learning*. CoRL 2019
- Daniel Angelov, **Yordan Hristov**, and Subramanian Ramamoorthy. Using causal analysis to learn specifications from task demonstrations. In *International Conference on Autonomous Agents and Multiagent Systems*. AAMAS 2019

University of Edinburgh — **Edinburgh, United Kingdom**
BSc with Honours in Computer Science — *Sept 2012 - May 2016*

- **First Class Honours degree**
- Dissertation Project: Real-time Vision on Embedded GPU Systems
- Informatics Scholarship sponsored by Bank of America for the years 2012-2015
- Award for best attacking robot in System Design Practical

High School of Mathematics "Baba Tonka" — **Ruse, Bulgaria**
High School Diploma — *Sept 2008 - May 2012*

- Graduated with overall GPA: **6.00/6.00** (Graduated top of Class 2012)

WORK EXPERIENCE AND POSITIONS OF RESPONSIBILITY

University of Edinburgh **Edinburgh, United Kingdom**
Research Associate *Aug 2020 - Present*

- Being part of a project on Trustworthy Autonomy
- Apply different inductive biases and model structures - Graph NNs, Koopman theory - to the problem of robustly modelling nonlinear dynamics of deformable objects.
- Investigate Uncertainty Quantification (UQ) methods in the context of Deep NN models

Amazon Scotland Dev Center **Edinburgh, United Kingdom**
Machine Learning Intern *June 2017 - Oct 2017*

- Being part of the Inherent Relations team
- Experimenting with Deep Neural Models for the purpose of performing Named Entity Disambiguation in the context of book items and their authors
- Posing and testing a hypothesis by designing a series of experiments and examining the corresponding empirical results
- Extensive work with AWS cloud technologies to facilitate scaling up the experiments past an initial prototype phase

Skyscanner **Edinburgh, United Kingdom**
Software Engineer Summer Intern *June 2016 - Aug 2016*

- Being part of the Hotels Partner Engineering team
- Developing a full-stack web service, helping to increase the teams throughput
- Employing Scrum as an agile software development methodology with biweekly sprints

Bank of America Merrill Lynch **London, United Kingdom**
Technology Summer Analyst *June 2015 - Aug 2015*

- Developing and delivering software in Scala, used internally in the company
- Researching different techniques used for algorithmic trading
- Gave a presentation about the place of machine learning and AI in the banking industry

University of Edinburgh **Edinburgh, United Kingdom**
Informatics Teaching Support *Sept 2014 - Aug 2020*

- Facilitating weekly programming group sessions.
- Learning how to explain complex concepts in a simpler and understandable manner.

University of Edinburgh **Edinburgh, United Kingdom**
University Website Programme Intern *June 2014 - July 2014*

- Assigned to one major 8-week project - developing a website-crawling tool in Python
- Improving my networking skills by attending monthly seminars and meetings.

Edinburgh City Council **Edinburgh, United Kingdom**
Website and Design in Sports Cubed *Mar 2013 - Aug 2014*

- Further developing the project from the Smart Data Hack for the Edinburgh City Council.
- Attending regular meetings with representatives from the Council

REFERENCES

Subramanian Ramamoorthy
Principal Supervisor
s.ramamoorthy@ed.ac.uk

Alex Lascarides
Second Supervisor
alex@inf.ed.ac.uk