

Yordan Hristov

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EDUCATION

University of Edinburgh

PhD, Robust Autonomy and Decisions group, IPAB

Edinburgh, United Kingdom

Sept 2016 - Expected 2020

My research interests are related to the field of Human-Robot Interaction, focussing on methods that allow human experts to speed up learning for robotic agents. Naturally humans can use multiple modalities of information to teach the agents certain task-specific knowledge that is crucial for the low sample complexity of the learning process. Thus, the challenge is to bridge the high-level semantic space in which the experts reason with the low-level state/action space in which the agents operate.

- **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*. Association for Computational Linguistics (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
- Daniel Angelov, **Yordan Hristov**, and Subramanian Ramamoorthy. Dynoplan: Combining motion planning and deep neuralnetwork based controllers for safe hrl. In *4th Multidisciplinary Conference on Reinforcement Learning and Decision Making (RLDM)*, 2019

University of Edinburgh

BSc with Honours in Computer Science

Edinburgh, United Kingdom

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"

High School Diploma

Ruse, Bulgaria

Sept 2008 - May 2012

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

WORK EXPERIENCE AND POSITIONS OF RESPONSIBILITY

Amazon Scotland Dev Center

Machine Learning Intern

Edinburgh, United Kingdom

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

Software Engineer Summer Intern

Edinburgh, United Kingdom

June 2016 - Aug 2016

- Being part of the Hotels Partner Engineering team
- Developing a full-stack web service, helping to increase the teams throughput
- Using Amazon Web Services for data storage and data access management
- Employing Scrum as an agile software development methodology with biweekly sprints

Bank of America Merrill Lynch

Technology Summer Analyst

London, United Kingdom

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

Informatics Teaching Support

Edinburgh, United Kingdom

Sept 2014 - Present

- Facilitating weekly programming group sessions.
- Learning how to explain complex concepts in a simpler and understandable manner.
- Interacting with 15-20 students per session.

University of Edinburgh

University Website Programme Intern

Edinburgh, United Kingdom

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

Website and Design in Sports Cubed

Edinburgh, United Kingdom

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