MARTIN ANDREEV ASENOV

m.a.asenov@gmail.com www.masenov.com +44 7761-797356 Edinburgh, UK

EDUCATION

The University of Edinburgh and Heriot-Watt University Sep 2017 - Jan 2022
Ph.D. in Robotics and Autonomous Systems

- "Architectures for Online Simulation-Based Inference Applied to Robot Motion Planning"
- Supervised by Prof. Subramanian Ramamoorthy and Dr. Kartic Subr

The University of Edinburgh and Heriot-Watt University Sep 2016 - Aug 2017
MRes in Robotics and Autonomous Systems

- "Active Sensing of Spatiotemporal Phenomena with a UAV"
- Supervised by Prof. Subramanian Ramamoorthy

The University of California, Irvine Sep 2014 - Jun 2015
International Exchange Student

- Favorite courses: Neural Networks and Deep Learning, Image Understanding, Computer Photography and Vision

The University of Edinburgh Sep 2012 - May 2016
BSc (Hons) Artificial Intelligence and Computer Science

- "Dynamic Model of Interactions Between Orientation Selective Neurons in Primary Visual Cortex"
- Supervised by Dr. Mark van Rossum

WORK EXPERIENCE

Huawei Technologies Research & Development Aug 2022 - Current
Senior Machine Learning Engineer *Edinburgh, UK*

- Lead development and deployed timeseries framework, saving 10k+ pounds per month
- Lead a team of seven people developing method for runtime estimation of neural networks
- Optimization of cloud systems' performance by tuning weights of scoring functions
- Optimization of LLMs and vision models placement on different types of hardware

Hyperscience Apr 2022 - Jul 2022
Machine Learning Engineer *Edinburgh, UK*

- Improved rotation correction of documents with data augmentation
- MVP with 15% improvement in accuracy within 2 months of starting

Amazon, PrimeAir Oct 2018 - Dec 2018
Research Applied Scientist *Graz, Austria*

- Worked on image segmentation from limited data using domain adaptation

Defense Science and Technology Laboratory Jan 2017 - Jun 2017; Nov 2017 - Sep 2018
Research Assistant *Edinburgh, UK*

- Collaboration between Heriot-Watt University, BMT and REDALERT
- Data-driven fluid simulation approach to characterize gas dynamics

The University of Edinburgh Jan 2016 - May 2016
Tutor *Edinburgh, UK*

· Prepared materials and conducted 9 tutorials for Object-Oriented Programming
· Tutored the advanced tutorials for the course, answered and helped with additional questions

Thales Avionics Jul 2015 - Aug 2015
Software Integration and Characterization Developer *Irvine, California, USA*

· Extended Google's Blockly visual programming editor to a test automation tool
· Assisted in training a support vector machine, able to estimate performance tests without running them

UAV Forge Oct 2014 - Jun 2015
Machine Learning Engineer *Irvine, California, USA*

· Created a system that performs autonomous landing, coordinated with other flying vehicles

SELECTED PUBLICATIONS

Lightweight Online Adaption for Time Series Foundation Model Forecasts, T. L. Lee, W. Toner, R. Singh, A. Joosen, M. Asenov, **ICML '25** (in review)

Serverless Cold Starts and Where to Find Them, A. Joosen, A. Hassan, M. Asenov, R. Singh, L. Darlow, J. Wang, Q. Deng, A. Barker, **EuroSys '25**

Performance of Zero-Shot Time Series Foundation Models on Cloud Data, W. Toner, T. L. Lee, A. Joosen, R. Singh, M. Asenov, I Can't Believe It's Not Better: Challenges in Applied Deep Learning Workshop, **ICLR '25**

DAM: Towards a Foundation Model for Forecasting, L. N. Darlow, Q. Deng, A. Hassan, M. Asenov, R. Singh, A. Joosen, A. Barker, A. Storkey, **ICLR '24**

FoldFormer: Sequence Folding and Seasonal Attention for Fine-grained Long-term FaaS Forecasting, L. N. Darlow, A. Joosen, M. Asenov, Q. Deng, J. Wang, A. Barker, **EuroMLSys '23**

Learning to Score: Tuning Cluster Schedulers through Reinforcement Learning, M. Asenov, Q. Deng, G. Yeung, A. Barker, **IC2E '23**

Vision-Based System Identification and 3D Keypoint Discovery using Dynamics Constraints, M. Jaques, M. Asenov, M. Burke, T. Hospedales, Workshop on Physical Reasoning and Inductive Biases for the Real World, **NeurIPS '21**

Inversion of Ultrafast X-ray Scattering with Dynamics Constraints, M. Asenov, N. Zotev, S. Ramamoorthy, A. Kirrander, Workshop on Machine Learning and the Physical Sciences, **NeurIPS '20**

Vid2Param: Modelling of Dynamics Parameters from Video, M. Asenov, M. Burke, D. Angelov, T. Davchev, K. Subr, S. Ramamoorthy, **RAL**, Vol 5(2): 414-421. Presented at **ICRA '20**

Active Localization of Gas Leaks using Fluid Simulation, M. Asenov, M. Rutkauskas, D.T. Reid, K. Subr, S. Ramamoorthy, **RAL**, Vol 4(2): 1776-1783. Presented at **ICRA '19**