Anton Chechetka

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https://github.com/waiwnf | https://habr.com/ru/users/waiwnf/

I am excited about applying modern machine learning and computer vision techniques to solve real-life problems in the physical world.

Education

PhD (2011), MS (2006), Robotics, Carnegie Mellon University
Thesis: Query-Specific Learning and Inference for Probabilistic Graphical Models

BS (2004), Applied Mathematics and Physics Moscow Institute for Physics and Technology

Work Experience

supervise.ly - Research Engineer (2018-2019)
AI-assisted smart tools for data labeling. Also responsible for all of the Python backend code (neural network plugins etc).

lvl5.ai - Perception and Localization Engineer (2018)
Structure from motion: adapting vanilla approaches to work robustly with phone dash cams recordings of wildly varying quality. Automatic cleanups of input data to avoid bad quality videos corrupting the overall reconstructions.

gradientor.ai - Founder (2016 - 2018)
Vision-based autonomous road following system with end-to-end deep learning.
Successfully tested “in the wild”: https://youtube.com/watch?v=G3CsO1vYlxI

Google Switzerland - Software Engineer (2011 - 2016)
Search ads quality. Developed new quality signals from idea to production, with particular focus on personalization.

Internships

Google NYC - Software Engineer Intern (2010)
Improving results quality for mobile visual search (Google Goggles).

Intel Research Pittsburgh - Research Intern (2009)
Developed new graphical models for object recognition in collections of related images.

Microsoft Research - Research Intern (2007)
Applied machine learning approaches to datacenter control problems.

Skills

Advanced: Linear Algebra, Analysis, Optimization, C++, Python, PyTorch, Linux
Basic: Android, Java

Publications

- *Query-Specific Learning and Inference for Probabilistic Graphical Models.* Anton Chechetka. Doctoral dissertation, technical report CMU-RI-TR-11-18, Robotics Institute, Carnegie Mellon University, 2011.

- *Evidence-Specific Structures for Rich Tractable CRFs.* Anton Chechetka and Carlos Guestrin. Conference on Neural Information Processing Systems (NIPS), 2010.

- *Focused Belief Propagation for Query-Specific Inference*. Anton Chechetka and Carlos Guestrin. Artificial Intelligence and Statistics (AISTATS), 2010. Best Student Paper Award.

- *Learning Thin Junction Trees via Graph Cuts.* Dafna Shahaf, Anton Chechetka and Carlos Guestrin. Artificial Intelligence and Statistics (AISTATS), 2009.

- *Efficient Principled Learning of Thin Junction Trees.* Anton Chechetka and Carlos Guestrin. Conference on Neural Information Processing Systems (NIPS), 2007.

- *Subjective Approximate Solutions for Decentralized POMDPs.* Anton Chechetka and Katia Sycara. Joint Conference on Autonomous Agents and Multiagent Systems, 2007. (extended abstract)

- *No-Commitment Branch and Bound Search for Distributed Constraint Optimization.* Anton Chechetka and Katia Sycara. Joint Conference on Autonomous Agents and Multiagent Systems, 2006. (extended abstract)

- *An Any-space Algorithm for Distributed Constraint Optimization.* Anton Chechetka and Katia Sycara. AAAI Spring Symposium on Distributed Plan and Schedule Management, March, 2006.

- A Decentralized Variable Ordering Method for Distributed Constraint Optimization. Anton Chechetka and Katia Sycara. Joint Conference on Autonomous Agents and Multi- agent Systems, 2005. (extended abstract)