Patrick Pletscher

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Summary

PhD in machine learning from ETH Zürich; career spanning research, applied AI and data engineering, and technical leadership at Amazon, Yahoo Labs, PriceHubble, Smallpdf, and Lokalise. Led AI/data organizations of up to 15 people; industry experience across language technology, document processing, real estate, finance, and ad tech.

Professional Experience

Jun 2024 – present	*VP AI & Data* Lokalise, Remote
Nov 2021 – May 2024	*Head of Data → VP of Data* Smallpdf, Zurich, Switzerland
Jun 2019 – Aug 2021	*Senior Data Scientist* Tensor Technologies, Zug, Switzerland
Oct 2016 – Mar 2019	*Chief Analytics Officer* PriceHubble, Zurich, Switzerland
Aug 2014 – Mar 2016	*Research Scientist* Yahoo Labs, Haifa, Israel
Jul 2013 – Mar 2014	*Machine Learning Scientist* Amazon, Berlin, Germany
Oct 2007 – Dec 2012	*Research & Teaching Assistant* ETH Zürich, Switzerland
Jun 2010 – Sep 2010	*Research Scientist Intern* Microsoft Research, Cambridge, UK **Advisors**: Sebastian Nowozin, Pushmeet Kohli, Carsten Rother
Aug 2006 – Jan 2007	*Research Scientist Intern* Mitsubishi Electric Research Labs (MERL), Cambridge, USA **Advisor**: Matthew Brand

Education

Oct 2007 – Oct 2012	*Ph.D., Computer Science / Machine Learning* ETH Zürich, Switzerland Structured output prediction and its applications in computer vision and NLP. **Supervisor**: Prof. Joachim M. Buhmann
Oct 2002 – Sep 2007	*M.Sc., Computer Science* ETH Zürich, Switzerland **Major**: Computational Science

Skills

Languages:	German (native), English (fluent)
Programming:	Python, Scala
ML & Data:	PyTorch, Spark, SQL & dbt, Airflow, Kafka
Cloud:	Kubernetes, Docker, Google Cloud, Amazon Web Services, Terraform, GitOps

Publications & Patents

International Conferences

- Simon Lacoste-Julien, Martin Jaggi, Mark Schmidt, and **Patrick Pletscher**. Block-Coordinate Frank-Wolfe Optimization for Structural SVMs. In *Proceedings of the Thirtieth International Conference on Machine Learning (ICML)*, 2013. Acceptance rate: 24%
- **Patrick Pletscher** and Sharon Wulff. LPQP for MAP: Putting LP solvers to better use. In *Proceedings of the Twenty-Ninth International Conference on Machine Learning (ICML)*, 2012. Acceptance rate: 27%
- **Patrick Pletscher** and Pushmeet Kohli. Learning low-order models for enforcing high-order statistics. In *Proceedings of the Fifteenth International Conference on Artificial Intelligence and Statistics (AISTATS) 2012*, pages 886–894. JMLR: W&CP 22, 2012. Acceptance rate: 33%
- **Patrick Pletscher** and Cheng Soon Ong. Part & Clamp: An efficient algorithm for structured output learning. In *Proceedings of the Fifteenth International Conference on Artificial Intelligence and Statistics (AISTATS) 2012*, pages 877–885. JMLR: W&CP 22, 2012. Acceptance rate: 33%
- **Patrick Pletscher**, Sebastian Nowozin, Pushmeet Kohli, and Carsten Rother. Putting MAP back on the map. In *33rd Annual Symposium of the German Association for Pattern Recognition (DAGM)*, volume 6835 of *Lecture Notes in Computer Science*, pages 111–121. Springer, 2011. Acceptance rate: 46%
- **Patrick Pletscher**, Cheng Soon Ong, and Joachim M. Buhmann. Entropy and Margin Maximization for Structured Output Learning. In *Proceedings of the 20th European Conference on Machine Learning (ECML)*, volume 6321 of *Lecture Notes in Computer Science*, pages 83–98, 2010. Acceptance rate: 18%
- **Patrick Pletscher**, Cheng Soon Ong, and Joachim M. Buhmann. Spanning Tree Approximations for Conditional Random Fields. In *Proceedings of the Twelfth International Conference on Artificial Intelligence and Statistics (AISTATS) 2009*, pages 408–415. JMLR: W&CP 5, 2009. Acceptance rate: 40%
- Matthew Brand and **Patrick Pletscher**. A conditional random field for automatic photo editing. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2008. Full oral presentation (63 out of 1593)

Journals

- Isabelle Guyon, Jiwen Li, Theodor Mader, **Patrick Pletscher**, Georg Schneider, and Markus Uhr. Competitive baseline methods set new standards for the NIPS 2003 feature selection benchmark. *Pattern Recognition Letters*, 28(12):1438–1444, 2007

International Workshops

- Martin Jaggi, Simon Lacoste-Julien, Mark Schmidt, and **Patrick Pletscher**. Block-Coordinate Frank-Wolfe for Structural SVMs. In *NIPS Workshop on Optimization for Machine Learning*, 2012
- **Patrick Pletscher** and Sharon Wulff. A Combined LP and QP Relaxation for MAP. In *NIPS Workshop on Discrete Optimization in Machine Learning (DISCML)*, 2011

Patents

- Matthew Brand and **Patrick Pletscher**. Method and Apparatus for Touching-up Images, 2012. US 8160396

Teaching Experience

Teaching assistant for five courses at ETH Zürich (2006–2012), including Computational Intelligence Lab and Image Analysis with Probabilistic Graphical Models.

Scientific Reviewing & Volunteering

Outstanding reviewer award at ICML 2015; reviewed for NeurIPS, JMLR, PAMI, and other top venues. Mentored a Google Summer of Code student for the Shogun ML library (2013).