Michal Valko

Stealth Startup San Francisco, California, US Paris, France

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EXPERIENCE \diamond Stealth Startup, San Francisco, USA & Paris, France Chief Models Officer (2025)

> ♦ Meta, GenAI, Paris, France Principal Llama Engineer (2024)

♦ Google DeepMind, Paris, France Senior Staff Research Scientist (2021 – 2023) Staff Research Scientist (2019 – 2021)

♦ ENS Paris-Saclay – Master 2 MVA, Paris-Saclay, France External Lecturer - CEV (2014 - ...)

♦ Inria – team SequeL, Lille, France

Tenured Experienced Junior Scientist - CR1/CRCN (2013 - ...)

External Collaborator - CR1/CRCN (2019 - ...)

Tenured Junior Scientist - CR2 (2012 – 2013)

Postdoctoral Researcher (2011 – 2012), Advisor: Rémi Munos

♦ Intel Research, Santa Clara, CA, USA Research Intern (2009, 2010), Advisor: Branislav Kveton

Teaching

♦ Graphs in machine learning, École normale supérieure de Paris-Saclay, Cachan, France, 2013 — 2024, graduate course \approx 60–170 students

EDUCATION \diamond École normale supérieure de Paris-Saclay, Paris-Saclay, France

HdR in Mathematics, June 2016.

Thesis: Bandits on Graphs and Structures, Jury: Nicolas Vayatis, Aurélien Garivier, Vianney Perchet, Nicolò Cesa-Bianchi, Gábor Lugosi, Mark Herbster, Rémi Munos

♦ University of Pittsburgh, Pittsburgh, PA

PhD in Machine Learning, August 2011.

Thesis: Adaptive Graph-Based Algorithms, Advisor: Milos Hauskrecht

Comenius University Bratislava, Slovakia

MSc., summa cum laude in Computer Science, June 2005.

Majors: Artificial Intelligence and Mathematical Methods of CS

Thesis: Evolving Neural Networks for Statistical Decision Theory, Advisor: R. Harman

SELECTED Awards

International Conference on Machine Learning 2023 Best Paper Award

Inria award for scientific excellence: Prime d'excellence scientifique (2018 - 2021)

Inria award for scientific excellence: Prime d'excellence scientifique (2014 - 2017)

International Conference on Machine Learning Top 10 Reviewer Award (2018)

International Conference on Machine Learning Reviewer Award (2015)

Distinguished Alumni of Comenius University, Slovakia (2015)

Google best paper of online learning in vision (2010)

Homer Warner Award by AMIA and OMG (2010)

Computer Science Department (2008 and 2011)

Michal Valko

University of Pittsburgh Honors Convocation Recognition (2009)

Andrew Mellon Predoctoral Fellowship (Fall 2008, Summer 2009)

Slovak Academy of Sciences Fellowship (2003 – 2005)

Research

large language models, reasoning, fine-tuning, test-time computation, RLHF, world models

PROJECT FUNDING

- ♦ DELTA (EU CHIST-ERA), 2018 2022 (Project Coordinator, PI: A. Jonsson)
- PGMO-IRMO grant of Fondation Mathématique Jacques Hadamard: Theoretically grounded efficient algorithms for high-dimensional and continuous reinforcement learning
- ♦ CompLACS (EU FP7), 2011 2015 (PI: J. Shawe-Taylor)
- ♦ BOLD (ANR), 2019 2023 (Project Coordinator, PI: V. Perchet)
- ♦ BoB (ANR), 2016 2020 (PI: R. Bardenet)
- ♦ Extra-Learn (ANR), 2014 2018 (PI), after A. Lazaric
- ♦ LeLivreScolaire.fr Sequential Learning for Educational Systems, 2017–2020 (PI)
- ♦ EduBand (with CMU), 2015 2018 (coPI, with A. Lazaric and E. Brunskill)
- ♦ Inria/CWI, Sequential prediction & Understanding Deep RL, postdoc funding (2016–2018)
- ♦ Allocate (with Universität Potsdam), 2017 2019 (PI) with A. Carpentier
- ♦ Intel/Inria Algorithmic Determination of IoT Edge Analytic (PI) 2013
- ♦ NIH grants (1R01LM010019-01A1, 1R21LM009102-01A1), 2009 2013 (PI: M. Hauskrecht)

Prior Work Experience

♦ Intel Labs, Intel, Santa Clara, CA (2010)

Multi-manifold learning. Large scale semi-supervised learning.

♦ Intel Research, Intel, Santa Clara, CA (2009)

Online semi-supervised learning. Max-margin structured prediction.

♦ Research Assistant, University of Pittsburgh (2007 – 2011)

Conditional Anomaly Detection project: System for Anomaly Detection in Medicine

♦ Research Assistant, University of Pittsburgh (2006)

Bioinformatics: Tools for preprocessing, analysis of high-throughput proteomic and genomic data and biomarker discovery.

♦ **Teaching Assistant**, University of Pittsburgh (Fall 2005)

CS7 course: Introduction to Programming

- ♦ Research Assistant, Institute of Normal and Pathological Physiology (2003 2005) Slovak Academy of Sciences, Bratislava, Slovakia
- ♦ Research Fellow, Centro de Inteligência Artificial, (Spring 2005) Universidade Nova de Lisboa, Portugal
- ♦ Organizer and Lecturer, Math Seminars in Slovakia (1998 2005)
 Math Competitions, Math Summer Camps, Slovakia

SERVICE ACTIVITIES

- ♦ Organizing co-chair: EEML (Slovakia 2023)
- ♦ Organizing co-chair: TS Workshop: Optimizing Human Learning (ITS 2018, 2019)
- Organizing co-chair: The power of graphs in machine learning and sequential decisionmaking workshop (GPOWER 2019)
- ♦ Organizing committee: JFPDA (2013), EWRL (2018), RLSS (2019)
- ♦ Program Co-chair: CNRS summer school (RESCOM 2018)
- ♦ Research grant reviewer: FNRS (2014–now), ISF (2019–now)
- ♦ Area chair and senior program committee: NeurIPS (2018–2020), ICLR (2021)

- ♦ Senior program committee: IJCAI (2017)
- Program committee: COLT (2019), ICML (2018), AISTATS (2016–2017, 2019), AAAI (2012, 2015), IJCAI (2015), RLDM (2015), EWRL (2012, 2015–2016), JFPDA (2014), GRL+ (2020), GNNSys (2021)
- IEEE TPS (2018), IEEE TPAMI (2017), JMLR (2016,2018,2020), Automatica (2016–2018), NeurIPS (2012–2017), ICLR (2019), ICML (2012–2016, 2019), COLT (2014, 2017–2018), ALT (2019), UAI (2011–2012), IJCAI (2009), KDD (2011), AAAI (2009, 2014), ECML (2012), MEDINFO (2010)
- ♦ DeepMind mentorship program
- ♦ INTEL/Inria Algorithmic Determination of IoT Edge Analytic 2013 (project leader)
- ♦ European FP7 grant (CompLACS), ANR grant (ExtraLearn), NIH grants
- ♦ Erasmus agreement between EC Lille and CU Bratislava in Computer Science.
- ♦ Committee of experts for hiring junior faculty at CMLA, ENS Paris-Saclay (2017)
- ♦ National Inria acceptance committee for hiring junior researchers (2017)
- ♦ Elected member of Inria Evaluation Committee (CE Inria 2014 2015, 2015 2019)
- ♦ Hiring committee for junior researchers at Inria Nancy (2015)
- ♦ Hiring committee for junior researchers at Inria Sophia Antipolis (2016)
- ♦ Hiring committee for junior researchers at Inria Saclay (2017)
- ♦ National committee for the secondments at Inria (2018)
- ♦ Selection committee for Inria award for scientific excellence juniors (2015 2017)
- ♦ Selection committee for Inria award for scientific excellence confirmed (2016 2018)
- ♦ Inria work group for avoiding conflicts of interest (2015 2019)
- ♦ Inria work group for the creation of team RandOpt (2017-2018)
- ♦ Promotion committee for junior researchers at Inria (2014, 2015, 2018)
- ♦ Member of Slovak Mathematicians and Physicists Scientific Society (2000 present)
- ♦ Member of Slovak Chemical Society (1997 2002)

Contests

- ♦ 1st place, Slovak Mathematical Olympiad, regional final 1993, 1994, 1996
- ♦ 9th place, Programming Contest Zenit (national final) 1998
- \diamond Correspondence seminars in Computer Science and Math 1992 2000 consistently ranked in top 10 nation—wide

SKILLS & HOBBIES

- ♦ Certificate in Academic Entrepreneurship
- ♦ English, French, Czech and Slovak (native language),
- ♦ Academic Senate Member, Comenius University, Bratislava, Slovakia (2003 2005)
- ♦ Volunteer, Tree of Life, environmental group (2003)
- ♦ Volunteer, Comptoir de Cana (2018 now)
- ♦ Volunteer, Association la Clé (2014 2017)
- ♦ Volunteer, PASS Senior (2013 2017)
- \$\Delta\$ Sports: hiking, squash, racquetball, running, volleyball, swimming
- ⋄ Organizer of various correspondence math seminars (KMS, STROM, SKMS) (1998 2005)
- ♦ Volleyball Player, TU Slavia, Kosice (1998 2000)