Andrii Skliar

Senior Research Engineer @ Qualcomm AI Research

Amsterdam, Netherlands

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Personal Profile

AI Research Engineer with a foundation in software engineering and over 5 years of in-depth research. Co-author of multiple influential publications, with main focus on model efficiency. My expertise lies in optimizing model performance while ensuring resource effectiveness, bridging academic theory and real-world practicality.

Work Experience

Qualcomm AI Research — *Amsterdam, Netherlands*

Senior Research Engineer — *Oct 2019 - Currently*

- Worked on model efficiency within research team formerly lead by Prof. Max Welling., where I led hardware-oriented ML projects and notably contributed to the DONNA Neural Architecture Search Algorithm, integrated into Qualcomm's AIMET library, as well as simulated quantization project resulting in a 17% energy reduction on Qualcomm hardware without compromising accuracy.
- Supported research on model efficiency topics, from Neural Architecture Search to Efficient Mixture-of-Experts, leading to a range of successful publications.

QUVA Lab — *Amsterdam, Netherlands*

Research Intern — *May 2019 – Oct 2019*

- Master's thesis internship in collaboration with QUVA Lab under the supervision of Maurice Weiler.
- Extended theory of Hyperbolic Neural Networks to Convolutional and Graph Neural Networks.

Intetics Inc. — *Kyiv, Ukraine*

Software Engineer — *Feb 2017 - Aug 2017*

- **Technology stack:** Haskell, MySQL, Python, PHP

Education

University of Amsterdam — *Amsterdam, Netherlands*

MSc in Artificial Intelligence — *Sep 2017 - Aug 2019*

- GPA: 8.8/10, Cum Laude
- Honours programme with multiple successful research projects.
- Courses in Theoretical and Applied Machine Learning

NTUU "Kyiv Polytechnical University" ESC "Insitute of Applied System Analysis" — *Kyiv, Ukraine*

BSc in System Analysis — *Sep 2013 - Jul 2017*

- GPA: 4.74/5, Top 5% of the Year Group

Publications

Hyperbolic Convolutional Neural Networks
Andrii Skliar, Maurice Weiler
2023

Simulated quantization, real power savings
Mart Baalen, Brian Kahne, Eric Mahurin, Andrey Kuzmin, Andrii Skliar, Markus Nagel, Tijmen Blankevoort
Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition, 2022

Simple and Efficient Architectures for Semantic Segmentation
Dushyant Mehta, Andrii Skliar, Haitam Ben Yahia, Shubhankar Borse, Fatih Porikli, Amirhossein Habibian, Tijmen Blankevoort
Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition, 2022

Revisiting single-gated Mixtures of Experts
Amelie Royer, Ilia Karmanov, Andrii Skliar, Babak Ehteshami Bejnordi, Tijmen Blankevoort
33rd British Machine Vision Conference 2022, BMVC 2022, London, UK, November 21-24, 2022, 2022

Cyclical pruning for sparse neural networks
Suraj Srinivas, Andrey Kuzmin, Markus Nagel, Mart Baalen, Andrii Skliar, Tijmen Blankevoort
Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition, 2022

Distilling optimal neural networks: Rapid search in diverse spaces
Bert Moons, Parham Noorzad, Andrii Skliar, Giovanni Mariani, Dushyant Mehta, Chris Lott, Tijmen Blankevoort
Proceedings of the IEEE/CVF International Conference on Computer Vision, 2021

Adding object detection skills to visual dialogue agents
Gabriele Bani, Davide Belli, Gautier Dagan, Alexander Geenen, Andrii Skliar, Aashish Venkatesh, Tim Baumgartner, Elia Bruni, Raquel Fernández
Proceedings of the European Conference on Computer Vision (ECCV) Workshops, 2018