

Curriculum Vitae

Yuki M. Asano

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RESEARCH INTERESTS

computer vision, self-supervision, vision-language models, privacy, bias

PROFESSIONAL EXPERIENCE

University of Amsterdam: Assist. Professor in Computer Vision and Machine Learning Since Oct. 2021

- Supervision of 8 PhD students, 10 MSc students
- Teaching in MSc in AI: Deep Learning 1 & Vision-Language Learning courses

Qualcomm AI: External Machine Learning Consultant Since May 2023

Facebook AI Research: Intern & Contractor; Host: A. Joulin Jun. 2020 – Feb. 2021

TransferWise: Machine Learning Intern & Contractor Mar 2017 – Jan. 2019

Rakuten: Cloud Infrastructure Engineering Intern Aug. 2015 – Sep. 2015

Siemens Technology Accelerator: Working student Apr. 2015 – Aug. 2015

180 Degrees Consulting Munich e.V.: President & Founder of NGO Dec. 2016 – Jun. 2017

SOS Children's villages International: Project lead Mar 2017 – Jun. 2017

McKinsey & Company: Fellow Intern Apr. 2015 – Aug. 2015

EDUCATION

University of Oxford Oxford, UK

DPhil in Autonomous Intelligent Machines and Systems @ Visual Geometry Group (VGG) Oct. 2017 – Sep. 2021

- Supervisor: Andrea Vedaldi; Examiners: Philip Torr, Phillip Isola
- Result: 'no corrections' (highest award possible)

University of Oxford Oxford, UK

MSc Mathematical Modelling and Scientific Computing (overall: Pass, thesis: Distinction) Oct. 2015 – Sep. 2016

University of Hagen Hagen, Germany

BSc Business Administration and Economics (overall: 1.4, GPA = 3.6/4) Oct. 2012 – Aug. 2017

Ludwig Maximilian University of Munich Munich, Germany

BSc. Physics (overall: 1.2, GPA = 3.8/4) Oct. 2011 – Sep. 2014

TEACHING

11/2023: Deep Learning 1(MSc in AI, 6 ECTS, <https://uvadlc.github.io/>)
220 students, ongoing

04/2023: Self-supervised and Vision-Language Learning (MSc in AI, 2 ECTS, <https://uvadl2c.github.io/>)
80 students, Overall student feedback: 87.0% (very) satisfied; score: 4.3 ± 0.8 out of 5

11/2022: Deep Learning 1(MSc in AI, 6 ECTS, <https://uvadlc.github.io/>)
200 students, Overall student feedback: 92.1% (very) satisfied; score: 4.5 ± 0.7 out of 5

Teaching Assistant / Practicals

10/19 – 01/21, Deep Learning and Machine Vision for AIMS cohort 2019, 2020 (Andrew Zisserman, Andrea Vedaldi)

01/20 – 01/20, Multiple View Geometry (Victor Adrian Prisacariu, Andrew Zisserman)

01/20 – 03/20, Design and Analysis of Algorithms (Daniel Kroening)

10/19 – 12/19, Machine Learning at CS Dept. (Phil Blunsom, Ani Calinescu)

01/18 – 03/18, Mathematics and Data Science for Development (Neave O'Cleary)

Certified Instructor workshops for the Nvidia Deep Learning Institute

3x Fundamentals of DL, at the University of Oxford Big-Data Institute and the Wellcome Centre for Human Genetics

Other Tutorials

01/2019 Introduction to (Deep) NLP at the Oxford Institute for New Economic Thinking

07/2018 Introduction to Machine Learning at Santa Fe Institute Complex Systems Summer School

07/2018 Introduction to CNNs and RNNs at Santa Fe Institute Complex Systems Summer School

SUPERVISION

ongoing:

PhD, Danilo de Goede with Cees Snoek

PhD, Laurens Samson with Sennay Ghebreab

PhD, Michael Dorkenwald with Cees Snoek

PhD, Mohammadreza Salehidehnavi with Cees Snoek and Efstratios Gavves

PhD, Pengwan Yang with Cees Snoek

PhD, Winfried van den Dool with Max Welling

PhD, Rob Romijnders with Max Welling

PhD, Phillip Lippe with Efstratios Gavves, Taco Cohen, Sara Magliacane

MSc thesis, Jona Ruthard

MSc thesis, Dawid Kopiczko

MSc thesis, Dheeraj Varghese

MSc thesis, Gabriele Desimini

MSc thesis, Gergely Papp

MSc thesis, Nimi Barazani

MSc thesis, Ioanna Gogou

MSc thesis, Ryan Amaudruz

MSc thesis, Valentinos Pariza

MSc thesis, Walter Simoncini

2023:

MSc thesis, Lukas Knobler

MSc thesis, Apostolos Panagiotopoulos

MSc thesis, Alfonso Taboada

MSc thesis, Luc Weytingh

MSc thesis, Kaya ter Burg

MSc thesis, Sunny Soni

2022:

MSc thesis, Jochem Loedeman

MSc thesis, Anton Kozackov

BSc thesis, Anne van der Weijden

BSc thesis, Philip de Wolf

OxAI interdisciplinary team on de-biasing in NLP [result: ACL'22 workshop paper]

2021:

MSc thesis, Adrian Ziegler, TUM (top-grade), [result: CVPR'22 paper]

OxAI interdisciplinary team on investigating bias in computer vision [result: ICLR'21 workshop paper]

OxAI interdisciplinary team on investigating hateful memes [result: ACL'21 workshop paper]

OxAI interdisciplinary team on investigating bias in NLP [result: NeurIPS'21 paper]

2020:

MSc thesis, Carlos Roberto Medina Temme, EPFL (top-grade)

OxAI interdisciplinary team working with Ada Lovelace Institute

AWARDS AND FUNDING

2022 “Best lecture” at VISUM summer school

2021 Awarded ELLIS membership

2x Google Academic Research Credits Program (PI, Co-PI), USD2K

2020 AWS Machine Learning Research Award (Co-PI with Christian Rupprecht and Andrea Vedaldi), USD80K

Qualcomm Innovation Fellowship Winner 2020 (PI), USD40K

2019 International Computer Vision Summer School: best team essay on assistive technology

2018 Edgell Sheppes Fund from Engineering Science Dept., Oxford

Balliol College Graduate Project Grant

- 2017 Full PhD funding by the Engineering and Physical Sciences Research Council, 1 successful EU applicant per year
Open Data Science Conference East Scholarship
- 2016 Brasenose College Annual Fund
- 2015 MSc bursary of the University of Oxford Mathematical Institute for best applicants
National Academic Foundation study abroad scholarship for studying at Oxford
- 2014 Ministry of Science in Japan scholarship, awarded to <1% of international undergraduate students
DAAD, German Academic Exchange Service scholarship for studying at the University of Tokyo
National Academic Foundation scholarship, for outstanding academic achievement, awarded to <0.4% of students
- 2013 Max Weber scholarship (elite network Bavaria), awarded to <1% of Bavarian students
EliteAkademie scholarship, <2% acceptance rate

INVITED TALKS

Keynotes:

- 01/2024 [5] Invited keynote at BMVA Symposium on vision and language
- 12/2023 [4] Invited keynote at NeurIPS Self-supervised Learning in Theory and Practice Workshop
- 10/2023 [3] Invited keynote at MADiMa workshop at ACMM2023
- 04/2022 [2] Invited keynote at AwesomeIT conference, Amsterdam
- 09/2022 [1] Invited keynote at ELLIS Video Understanding Symposium

Research talks:

- 12/2023 [31] Invited talk at Netherlands Cancer Institute (NKI), Amsterdam (W. Silva)
- 09/2023 [30] Invited talk at Google DeepMind, London (J. Carreira)
- 07/2023 [29] Invited talk at Google Brain, Ghana (J. Hickey)
- 07/2023 [28] Invited talk at University of Ghana (JD. Abdulai)
- 06/2023 [27] Invited talk at Helsing AI, Germany (A. Bordes)
- 05/2023 [26] Invited talk at Computer Vision and Graphics Seminar, MIT (A. Torralba)
- 05/2023 [25] Invited talk at Computer Vision Group, University of Tempere (E. Rathu)
- 02/2023 [24] Invited talk at Computer Vision Center, Universitat Autònoma de Barcelona (D. Karatzas)
- 02/2023 [23] Invited lecture at Machine Learning Course, University of Edinburgh (H. Bilen)
- 02/2023 [22] Invited talk at Machine Learning and Computer Vision Group, University of Bristol (D. Damen, M. Wray)
- 02/2023 [21] Invited talk at AIMS seminar, University of Oxford (M. Osborne)
- 12/2022 [20] Invited talk at Computer Vision Group, University of Bern (P. Favaro)
- 10/2022 [19] Invited talk at AWS Research, Tel-Aviv (R. Litman)
- 09/2022 [18] Invited talk at the Machine Intelligence Laboratory, University of Cambridge (R. Cipolla, S. Albanie)
- 04/2022 [17] Invited talk at BMVA Symposium, Manchester
- 03/2022 [16] Invited talk at LMSS Seminar at INRIA, Rennes (L. Amsaleg)
- 12/2021 [15] Invited talk at Qualcomm-UvA Deep Vision Seminar at University of Amsterdam (E. Gavves)
- 11/2021 [14] Invited lecture at FACT-AI MSc course at University of Amsterdam (F. Santos)
- 10/2021 [13] Invited talk at CMIC & WEISS at medical imaging group University College London
- 09/2021 [12] Invited talk at International Workshop on Agentization, George Mason University and the Proteus Foundation
- 06/2021 [11] Invited talk at Imagine group at ENPC ParisTech (D. Picard)
- 05/2021 [10] Invited talk at Computer Vision Center, Universitat Autònoma de Barcelona (D. Karatzas)
- 03/2021 [9] Invited talk at Zalando Data Science Community Knowledge Exchange
- 01/2021 [8] Invited talk at Torr Vision Group and FiveAI (P. Torr)
- 10/2020 [7] Invited talk at UnitaryAI
- 06/2019 [6] Invited talk at Robotics and Autonomous Systems CDT Conference
- 03/2018 [5] Networks seminar, Mathematical Institute, University of Oxford
- 01/2018 [4] Balliol College interdisciplinary student seminar, University of Oxford
- 11/2017 [3] Networks seminar, Mathematical Institute, University of Oxford
- 10/2017 [2] Complexity Economics meeting, Institute for New Economic Thinking
- 08/2017 [1] Transdisciplinary methods research group, Potsdam Institute for Climate Impact Research

SERVICE TO THE ACADEMIC COMMUNITY

PhD Jury member:

- 2023 Fida Thoker (University of Amsterdam)
- Vladimir Iashin (Tampere University)
- Mohamed Sayed (University College London)

Committee:

2022 Member in the Ethical Committee for Student Projects at University of Amsterdam, Information Sciences

Area Chair:

2024 ICLR, CVPR, WACV

2023 CVPR, NeurIPS, NeurIPS workshops

2022 ECCV, ECCV workshop, NeurIPS workshop

Reviewer:

2023 ICCV (outstanding reviewer), IJCV

2022 CVPR, ICML (outstanding reviewer), ECCV, ECCV workshop, IJCV, NeurIPS, ACM Multimedia, IJCV

2021 CVPR (outstanding reviewer), ICCV (outstanding reviewer), NeurIPS Track on Datasets & Benchmarks,

TPAMI, IJCV, NeurIPS workshops (3x): SSL Theory and Practice, Pregistration of Experiments, ImageNet PPF

2020 ACCV, NeurIPS workshops (2x): SSL Theory and Practice; Pregistration of Experiments

ORGANIZATION OF WORKSHOPS

12/2023 NeurIPS workshop on *Causal Representation Learning*

S. Magliacane, C. Eastwood, **YM. Asano**, C. Shi, A. Mastakouri, S. Lachapelle, C. Uhler, B. Schölkopf

10/2023 ICCV workshop on *Big Model Adapting for Computer Vision (BigMAC)*

YM. Asano, T. Han, M. Caron, P. Isola, S. Belongie

10/2022 ECCV workshop on *Self-Supervised Learning*

YM. Asano, C. Rupprecht, D. Larlus, A. Zisserman

12/2022 NeurIPS workshop on *Self-Supervised Learning: Theory and Practice*

I. Misra, P. Xie, X. Wang, G. Varol, Y. Song, **YM. Asano**, P. Luc

08/2020 ECCV workshop on *Self-Supervised Learning*

YM. Asano, C. Rupprecht, and A. Joulin, A. Vedaldi

ACADEMIC DEVELOPMENT

University Teaching Qualification (BKO) courses (5 days) + Inclusive Learning Environment Trajectory (1 day)

Academic Leadership (8 days), University of Amsterdam

Superb Supervision (4 days), University of Amsterdam

Entrepreneurship (0.5 day), Said Business school, University of Oxford

Looking behind the label: mental ill-health in the workplace (0.5 day), University of Oxford

Core writing skills (0.5 day), University of Oxford

Public Engagement (0.5 day), University of Oxford

Presentation Skills (0.5 day), University of Oxford

Beyond Communication: Effective Two-way Engagement (0.5 day), University of Oxford

SUMMER/WINTER SCHOOL LECTURES

12/2022 Lecturer at Intelligent Sensing Winter School of Queen Mary Univ. of London (virtual)

09/2022 Lecturer at IPM-AI summer school (virtual)

07/2022 Lecturer at VISUM Summer school by INESC TEC (elected “best lecture”)

05/2022 Lecturer at ASCI Computer Vision Summer School, Amsterdam

08/2021 Organiser and Lecturer: Introductory 10-day workshop titled *Self-supervised learning and ethics* for the German National Academic Foundation (Studienstiftung) summer academy, co-organized with C. Rupprecht

MEDIA

ongoing: Organizer of the Deep Vision Seminar at the UvA with more than 2200 members on [MeetUp](#)

2021 Community blogposts about our PASS dataset and paper: [ImportAI](#), [Synced](#), [Deep Learning Weekly](#)

Blogpost from Facebook AI about applying our method in [Instagram Reels](#)

2020 Advisor for projects at OxAI, a society to educate, build and connect an interdisciplinary AI community

Blogpost from Facebook AI about our GDT paper

Interviewed for the [CTDS](#) podcast

Community video analyses ([1](#) [2](#)) about our ICLR 2020 paper

Community blogposts ([1](#), [2](#)) about our ICLR 2020 spotlight paper

OTHER

Languages: German (native), Japanese (native), English (fluent, IELTS 8.5/9), French (basic)

Nationality: German & Japanese

Hobbies: Hiking, Tree & Plant identification, (Ultra)-running

According to Google scholar, my publications have ≈ 2000 citations and my h-index is 17. *: joint first-authorship

Main Conferences/Journals

36 Self-Guided Open-Vocabulary Semantic Segmentation

C.O. Ülger, M. Kulicki, **YM. Asano**, M.R. Oswald
ArXiv, 2023.

35 Federated Fine-Tuning of Foundation Models via Probabilistic Masking

V. Tsouvalas, **YM. Asano**, A. Saeed
ArXiv, 2023.

34 Protect Your Score: Contact-tracing With Differential Privacy Guarantees

R. Romijnders, **YM. Asano**, C. Louizos, M. Welling
AAAI, 2024.

33 VeRA: Vector-based Random Matrix Adaptation

DJ. Kopiczko, T. Blankevoort, **YM. Asano**
ArXiv, 2023.

32 Is ImageNet worth 1 video? Learning strong image encoders from 1 long unlabelled video

S. Venkataramanan, MN. Rizve, J. Carreira, **YM. Asano***, Y Avrithis*
ArXiv, 2023.

31 Efficient Neural PDE-Solvers using Quantization Aware Training

W. van den Dool, T. Blankevoort, M. Welling, **YM. Asano**
International Conference on Computer Vision (ICCV) [oral], 2023.

29 Time Does Tell: Self-Supervised Time-Tuning of Dense Image Representations

M. Salehi, E. Gavves, CGM. Snoek, **YM. Asano**
International Conference on Computer Vision (ICCV), 2023.

28 Small Visual Language Models can also be Open-Ended Few-Shot Learners

MM. Derakhshani, I. Najdenkoska, M. Worring, CGM. Snoek, **YM. Asano**
ArXiv, 2023.

27 Semantic Counting from Self-Collages

L. Knobel, T. Han, **YM. Asano**
ArXiv, 2023.

26 BISCUIT: Causal Representation Learning from Binary Interactions

P. Lippe, S. Magliacane, S. Löwe, **YM. Asano**, T. Cohen, E. Gavves
Conference on Uncertainty in Artificial Intelligence (UAI) [Spotlight], 2023.

25 Self-Guided Diffusion Models

VT. Hu, DW. Zhang, **YM. Asano**, GJ. Burghouts, CGM. Snoek
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2023.

24 Skip-Attention: Improving Vision Transformers by Paying Less Attention

S. Venkataramanan, A. Ghodrati, **YM. Asano**, F. Porikli, and A. Habibian
ArXiv, 2023

23 No time to waste: practical statistical contact tracing with few low-bit messages

R. Romijnders, **YM. Asano**, C. Louizos, M. Welling
International Conference on Artificial Intelligence and Statistics (AISTATS), 2023

22 Towards Label-Efficient Incremental Learning: A Survey

M. Kilickaya, J. Weijer, **YM. Asano**
ArXiv, 2023

21 Causal Representation Learning for Instantaneous and Temporal Effects in Interactive Systems

P. Lippe, S. Magliacane, S. Löwe, **YM. Asano**, T. Cohen, E. Gavves
International Conference on Learning Representations (ICLR), 2023

20 The Augmented Image Prior: Distilling 1000 Classes by Extrapolating from a Single Image

YM. Asano*, A. Saeed*
International Conference on Learning Representations (ICLR), 2023

19 VTC: Improving Video-Text Retrieval with User Comments

L Hanu, **YM. Asano**, J. Thewlis, C. Rupprecht
European Conference on Computer Vision (ECCV), 2022.

18 Less than Few: Self-Shot Video Instance Segmentation

P. Yang, **YM. Asano**, P. Mettes, CGM. Snoek

European Conference on Computer Vision (ECCV), 2022.

17 CITRIS: Causal Identifiability from Temporal Intervened Sequences

P. Lippe, S. Magliacane, S. Löwe, **YM. Asano**, T. Cohen, E. Gavves

International Conference on Machine Learning (ICML), 2022.

16 Self-supervised object detection from audio-visual correspondence

T. Afouras*, **YM. Asano***, F. Fagan, A. Vedaldi, F. Metze

IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2022.

15 Prompt Generation Networks for Efficient Adaptation of Frozen Vision Transformers

J. Loedemann, T. Han, **YM. Asano**

ArXiv, 2022.

14 Self-Supervised Learning of Object Parts for Semantic Segmentation

A. Ziegler, **YM. Asano**

IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2022.

13 Measuring the Interpretability of Unsupervised Representations via Quantized Reversed Probing

I. Laina, **YM. Asano**, A. Vedaldi

International Conference on Learning Representations (ICLR), 2022

12 Bias Out-of-the-Box: An Empirical Analysis of Intersectional Occupational Biases in Popular Generative Language Models

H. Kirk, Y. Jun, H. Iqbal, E. Benussi, F. Volpin, FA. Dreyer, A. Shtedritski, **YM. Asano**

Neural Information Processing Systems (NeurIPS), 2021.

11 Keeping Your Eye on the Ball: Trajectory Attention in Video Transformers

M. Patrick*, D. Campbell*, **YM. Asano***, I. Misra, F. Metze, C. Feichtenhofer, A. Vedaldi, JF. Henriques

Neural Information Processing Systems (NeurIPS) [Oral], 2021.

10 PASS: An ImageNet replacement for self-supervised pretraining without humans

YM. Asano, C. Rupprecht, A. Zisserman, A. Vedaldi

Neural Information Processing Systems Track on Datasets and Benchmarks (NeurIPS-Data), 2021

9 Space-Time Crop & Attend: Improving Cross-modal Video Representation Learning

M. Patrick*, **YM. Asano***, B. Huang, I. Misra, F. Metze, JF. Henriques, A. Vedaldi

International Conference on Computer Vision (ICCV), 2021.

8 On Compositions of Transformations in Contrastive Self-Supervised Learning

M. Patrick*, **YM. Asano***, P. Kuznetsova, R. Fong, JF. Henriques, G. Zweig, and A. Vedaldi

International Conference on Computer Vision (ICCV), 2021.

7 Emergent inequality and endogenous dynamics in a simple behavioral macroeconomic model

YM. Asano, JJ. Kolb, J. Heitzig, JD. Farmer

Proceedings of the National Academy of Sciences (PNAS), 2021.

6 Support-set bottlenecks for video-text representation learning.

M. Patrick*, PY. Huang*, **YM. Asano***, F. Metze, A. Hauptmann, JF. Henriques, A. Vedaldi

International Conference on Learning Representations (ICLR) [Spotlight], 2021

5 Labelling unlabelled videos from scratch with multi-modal self-supervision.

YM. Asano*, M. Patrick*, C. Rupprecht, A. Vedaldi

Neural Information Processing Systems (NeurIPS), 2020

4 Self-labelling via simultaneous clustering and representation learning

YM. Asano, C. Rupprecht, and A. Vedaldi

International Conference on Learning Representations (ICLR) [Spotlight], 2020.

3 A critical analysis of self-supervision, or what we can learn from a single image

YM. Asano, C. Rupprecht, and A. Vedaldi

International Conference on Learning Representations (ICLR), 2020.

2 Rising adoption and retention of meat-free diets in online recipe data

YM. Asano*, G. Biermann*

Nature Sustainability, 2(7):621–627, 2019

1 Monte Carlo Study of the Precision and Accuracy of Proton CT Relative Stopping Power Maps

G. Dedes and **YM. Asano**, N. Arbor, D. Dauvergne, J. Letang, E. Testa, S. Rit, K. Parodi

Medical Physics, 3298-3298, 2015.

Workshop papers

Efficient Neural PDE-Solvers using Quantization Aware Training

W. Dool, T. Blankevoort, M. Welling **YM. Asano**

International Conference on Computer Vision (ICCV) Workshop on Resource Efficient Deep Learning, 2023.

Memes in the Wild: Assessing the Generalizability of the Hateful Memes Challenge Dataset

H. Kirk, Y. Jun, G. Wachtel, N. Broestl, R. Li, P. Rauba, X. Bai, M. Doff-Sotta, A. Shtedritski, **YM Asano**

Workshop on Online Abuse and Harms, ACL 2021

Privacy-preserving Object Detection

P. He, C. Griffin, K. Kacprzyk, A. Joosen, M. Collyer, A. Shtedritski, **YM. Asano**

ICLR'21 Synthetic Data Generation Workshop