

Curriculum Vitae

Yuki M. Asano

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RESEARCH INTERESTS

computer vision, privacy, bias, self-supervision, multi-modal learning (video, audio, text)

PROFESSIONAL EXPERIENCE

University of Amsterdam

Amsterdam, NL

Assistant Professor in Computer Vision and Machine Learning and Science Manager of the QUVA Lab Oct. 2021 –

- Co-supervision of 5 PhD students with C.G.M. Snoek, M. Welling, E. Gavves

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

PUBLICATIONS

According to Google scholar, my publications have ≈ 550 citations and my h-index is 8. *: joint first-authorship

Main Conferences/Journals

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.

Self-Supervised Learning of Object Parts for Semantic Segmentation

A. Ziegler, YM. Asano

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

Measuring the Interpretability of Unsupervised Representations via Quantized Reversed Probing

I. Laina, YM. Asano, A. Vedaldi

International Conference on Learning Representations (ICLR), 2022

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.

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.

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

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.

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.

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.

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

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

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

Neural Information Processing Systems (NeurIPS), 2020

Self-labelling via simultaneous clustering and representation learning

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

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

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.

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

YM. Asano*, G. Biermann*

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

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.

Workshops

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

SeLaVi: self-labelling videos without any annotations from scratch

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

ICLR'21 Embodied Multimodal Learning Workshop

Preprints

Extrapolating from a Single Image to a Thousand Classes using Distillation

YM. Asano*, A. Saeed*

arXiv: 2112.00725, 2021.

TEACHING

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, Mohammadreza Salehidehnavi with Cees Snoek and Efstathios 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 Efstathios Gavves
- MSc thesis, Anton Kozackov
- MSc thesis, Jochem Loedeman
- BSc thesis, Anne van der Weijden
- OxAI interdisciplinary team on de-biasing in NLP

2021:

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

TALKS

- 04/2022 Invited talk at AwesomeIT conference, Amsterdam
- 03/2022 Invited talk at LMSS Seminar at INRIA, Rennes
- 12/2021 Invited talk at Qualcomm-UvA Deep Vision Seminar at University of Amsterdam
- 10/2021 Invited talk at CMIC & WEISS at medical imaging group University College London
- 09/2021 Paper talk at International Workshop on Agentization, George Mason University and the Proteus Foundation
- 06/2021 Invited talk at Imagine group at ENPC ParisTech
- 05/2021 Invited talk at Computer Vision Center, Universitat Autònoma de Barcelona
- 05/2021 3x Paper talks at ICLR: one spotlight, two workshop posters
- 03/2021 Invited talk at Zalando Data Science Community Knowledge Exchange
- 01/2021 Invited talk at Torr Vision Group and FiveAI
- 10/2020 Invited talk at UnitaryAI
- 12/2020 Paper talk at NeurIPS: one poster
- 05/2020 2x Paper talks at ICLR: one spotlight, one poster
- 06/2019 Robotics and Autonomous Systems CDT Conference
- 11/2018 Paper talk at EMNLP workshop on Noisy User-generated Text
- 03/2018 Networks seminar, Mathematical Institute, University of Oxford
- 01/2018 Balliol College interdisciplinary student seminar, University of Oxford
- 11/2017 Networks seminar, Mathematical Institute, University of Oxford
- 10/2017 Complexity Economics meeting, Institute for New Economic Thinking (Young Scholars)
- 08/2017 Transdisciplinary methods research group, Potsdam Institute for Climate Impact Research

SUMMER SCHOOL LECTURES/ORGANISATION

- 07/2022 Lecturer at Vision Understanding and Machine Learning (VISUM) Summer school by INESC TEC
- 05/2022 Lecturer at ASCI Computer Vision Summer School, Amsterdam
- 08/2021 Introductory 10-day workshop titled *Self-supervision and ethics in Deep Learning* for the German National Academic Foundation (Studienstiftung) summer academy in Leysin, co-organized with C. Rupprecht

ORGANIZATION OF WORKSHOPS & COMMUNITY & SUMMER SCHOOLS

- ongoing* Organizing a focus group on privacy in computer vision with leading researchers in the field
- ongoing* ECCV'22 workshop on *Self-Supervised Learning*, main organiser with C. Rupprecht, D. Larlus, A. Zisserman
- 08/2020 ECCV workshop on *Self-Supervised Learning*, main organiser with C. Rupprecht, and A. Joulin, A. Vedaldi

WORK EXPERIENCE

- Facebook AI Research:** Intern & Contractor; worked with 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	Dec. 2016 – Jun. 2017
SOS Children’s villages International: Project lead	Mar 2017 – Jun. 2017
McKinsey & Company: Fellow Intern	Apr. 2015 – Aug. 2015

AWARDS AND FUNDING

- 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 Sheppee 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

SERVICE TO THE ACADEMIC COMMUNITY

Area Chair:

2022 ECCV

Reviewer:

2022 CVPR, ICML, ECCV, IJCV

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

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

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

SUMMER SCHOOL PARTICIPATION

- 2019 Alan-Turing Institute Data Study group: Object detection for microscopic cell tracking for DSTL, London
International Computer Vision Summer School (ICVSS), Sicily
- 2018 Santa Fe Complex Systems Summer School, Santa Fe
- 2016 Alan-Turing Institute Data Study group: worked on multi-spectral airborne imaging with Syngenta, London

MEDIA

- ongoing: Organizer of the Deep Vision Seminar 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