Curriculum Vitae

Yuki M. Asano

yuki@robots.ox.ac.uk | linkedin.com/in/yuki-m-asano/ | yukimasano.github.io/

RESEARCH INTERESTS

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

PROFESSIONAL EXPERIENCE

University of Amsterdam   Amsterdam, NL
Assistant Professor in Computer Vision and Machine Learning at the QUVA Lab   *Oct. 2021 –*

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

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 ≈350 citations and my h-index is 6.

Main Conferences/Journals

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. Feichenhofer, A. Vedaldi, JF. Henriques
Neural Information Processing Systems (NeurIPS), 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

---

*Denotes joint first-authorship

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

Self-supervised object detection from audio-visual correspondence
T. Afouras*, YM. Asano*, F. Fagan, A. Vedaldi, F. Metze
arXiv: 2104.06401, 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

2021 MSc thesis, Adrian Ziegler, TUM (ongoing)
    OxAI interdisciplinary team on investigating bias in computer vision
    OxAI interdisciplinary team on investigating bias in NLP
2020 MSc thesis, Carlos Roberto Medina Temme, EPFL
    OxAI interdisciplinary team working with Ada Lovelace Institute

Talks

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 Autonoma 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

Organization of Workshops & Tutorials

08/2021 *The Future is Self-supervised* (10 days) Introductory tutorial and project work organization for the German
       National Academic Foundation summer academy in Leysin, co-organized with C. Rupprecht
08/2020 Self-Supervised Learning – What is next? ECCV workshop, organized with C. Rupprecht, 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
Siements 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 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

Reviewing

2022 CVPR, AAAI workshop: Human-Center SSL 2021 NeurIPS Track on Datasets & Benchmarks, TPAMI, CVPR,
(outstanding reviewer), ICCV (outstanding reviewer), IJCV
2020 ACCV, NeurIPS workshops (3x): Self-supervised Learning, Theory and Practice; Pregistration of Experiments

Other Academic Events

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/Research community

2021 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