

## CURRICULUM VITAE

(The titles and subtitles follow the CV format of the Finnish National Board on Research Integrity)

- **PERSONAL DETAILS / DATE OF THE CV**

- **Surname:** Kumar
- **Firstname:** Abhishek
- **ORCID:** 0000-0003-4383-7225
- **Google Scholar:** <https://scholar.google.com/citations?user=VHuU14AAAAAJ>
- **Researchgate:** <https://www.researchgate.net/profile/Abhishek-Kumar-254>
- **Homepage:** <https://researchportal.helsinki.fi/en/persons/abhishek-kumar>
- **Date of the CV:** 16 March 2023

- **DEGREES**

### **Doctor of Philosophy in Computer Science, University of Helsinki, Feb 2018 - Jan 2023**

- Thesis title: Towards Trustworthy Ubiquitous Computing: Bringing *Privacy* and *Robustness* to Computing in Context
- Thesis Statement: In this thesis, we aim *to bridge the gap between Mark Weiser's vision of "Ubiquitous Computing" and the user's concern of potential misuse by enabling privacy and robustness to the user's context, paving the path of trustworthy ubiquitous computing.*
- Research Areas: Mobile and Pervasive Computing, Extended Reality, On-Device Machine Learning, Internet of Things
- Grade from course works: 4.85/5.0
- Supervisor: Pan (Ben) Hui, University of Helsinki
- Thesis Committee
  - Dimitris Papadopoulos, Hong Kong University of Science and Technology, Hong Kong SAR
  - Giulio Jacucci, University of Helsinki
- Opponent: Isabel Wagner, University of Basel
- Pre-examiners:
  - Janne Lindqvist, Aalto University
  - Panos Kostakos, University of Oulu

### **Master of Science in Knowledge Service Engineering, KAIST<sup>1</sup>, Sept 2014 - Aug 2016**

- Thesis title: "Bayesian Ensembled Mean-Median Reversion-based Strategy for Online Portfolio Selection"
- Research Areas: Applied Machine Learning, Machine Learning for Financial Engineering
- Grade from course works: 90.44/100
- Supervisor: Aviv Segev

### **Bachelor of Technology in Computer Science and Engineering, National Institute of Technology Patna (Sep 2010 - May 2014)**

- Attained Cumulative Grade Point Average (CGPA) of 8.81 / 10.00, Rank 2 in Class of 56.

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<sup>1</sup> Formerly known as Korea Advanced Institute of Science and Technology

- **OTHER EDUCATION**

**Fab Academy Diploma, Fab Academy, Oulu, Jan 2023 - Jun 2023 (Present)**

- Received a 6000 Euros Grant from the Fab Lab Oulu for the Diploma

**University Pedagogy - Basic Studies (25 ECTS), Faculty of Education and Psychology, University of Oulu, Finland, Nov 2022 - Oct 2024 (Present)**

- Pedagogy Training Program for University Teachers, Focus on Research driven Teaching and Citizen Science

**Student Exchange Program, Handong Global University, South Korea, Sept 2013 - Jun 2014**

- Received full financial support from the Korean Government and the Handong Global University

- **CURRENT RESEARCH INTERESTS**

- Internet of Things: Energy Efficiency, Environmental Sensing, Wireless Sensor Network
- Distributed XR
- 6G Software Architecture
- Machine Learning Systems
- Software-defined Battery
- Software-defined Hardware Infrastructure

- **PREVIOUS RESEARCH AREAS**

- Privacy and Security in Mobile and Pervasive Computing
- Adversarial Machine Learning

- **EMPLOYMENT**

**Postdoctoral Researcher, Center for Ubiquitous Computing, University of Oulu, Finland (08 Feb 2023 - Present, Contract valid until 30 June 2026)**

- **Supervisor:** Susanna Pirttikangas, University of Oulu, and Sasu Tarkoma, University of Helsinki and University of Oulu
- **Supported** by the Academy of Finland 6G Genesis Flagship
- **Job Description:** [Postdoc responsibilities] Leading research on Internet of Things, Distributed Computing Continuum Systems, Distributed XR, Teaching courses, Writing grant applications, Supervising Master and Doctoral students

**Visiting Researcher, Department of Computer Science, University of Helsinki, Finland (08 Mar 2022 - Present)**

- **Job Description:** Conducting research on MegaSense (Sensing and Analytics of the Air Quality Measurements by Low-Cost Sensors) Project
- **PREVIOUS WORK EXPERIENCE**

**6G Flagship Researcher, Center for Ubiquitous Computing, University of Oulu, Finland (08 Feb 2022 - 12 Feb 2023)**

- **Full-Time Salaried Position, Supported** by the Academy of Finland and the Horizon Europe projects
- **Job Description:** Leading research on Distributed Computing Continuum Systems, Distributed XR, Teaching courses, Writing grant applications, Supervising Master students

**Visiting Researcher, Distributed Systems Group, TU Wien, Austria (28 Jun 2022 - 30 Jun 2022)**

- **Full-Time Non-salaried Position (Salary paid by the University of Oulu), Supported** by the Nokia Scholarship, Hosted by Dr. Lauri Lovén
- **Job Description:** Conducting research on the XR Service Placement in Multi-Access Edge Computing, and Resource Scheduling in Multi-Domain Orchestration

**Visiting Researcher, Chair of Connected Mobility, Technical University of Munich, Germany (01 Jun 2022 - 27 Jun 2022)**

- **Full-Time Non-salaried Position (Salary paid by the University of Oulu), Supported** by the Nokia Scholarship, Hosted by Dr. Nitinder Mohan and Prof. Jörg Ott
- **Job Description:** Conducting research on the XR Service Placement in Multi-Access Edge Computing, and Resource Scheduling in Multi-Domain Orchestration

**Doctoral Researcher, Department of Computer Science, University of Helsinki, Finland (08 Feb 2018 - 07 Feb 2022)**

- **Supported** by the Academy of Finland-funded Project - *5GEAR: 5G Enhanced Edge Computing for Augmented Reality*
- **Job Description:** Conducting research on the 5GEAR Project, Writing research papers, Assisting supervisor in teaching courses and grant application writing
- On leave for 4 months (Jun 2021 - Sept 2021) for an internship at Nokia Bell Labs Espoo

**Research Intern, Nokia Bell Labs Espoo, Finland (Jun 2021 - Sept 2021)**

- **Full-Time Salaried Position** in End-to-End Radio Network Service Automation Department, Worked remotely with Bell Labs Team based in Stuttgart, and Mobile Networks Business Team based in Bangalore and New Jersey

- **Job Description:** Conducting research on Slice-aware Mobility Management in 5G Heterogeneous Networks

**Visiting Scholar, Center for Ubiquitous Computing University of Oulu, Finland (March 2020)**

- **Full-Time Non-Salaried Position (Salary paid by the University of Helsinki)**, Hosted by Dr. Lik-Hang (Paul) Lee
- **Job Description:** Conducting research on multimodal spatial authentication for mixed reality headsets

**Visiting Scholar, Hong Kong University of Science and Technology (Aug 2019 - Feb 2020)**

- **Full-Time Non-Salaried Position (Salary paid by the University of Helsinki)** in Systems and Media Laboratory led by Prof. Pan Hui
- **Job Description:** Conducting research on privacy-preserving systems for mobile users, and Trustworthy AI

**Visiting Scholar, Computer Laboratory, University of Cambridge, United Kingdom (Aug 2018)**

- **Full-Time Non-Salaried Position (Salary paid by the University of Helsinki)** in Systems Research Group, Hosted by Prof. Jon Crowcroft
- **Job Description:** Conducting research on privacy economics and cyber blackout

**Visiting Scholar, Indian Institute of Technology Delhi (Aug 2018)**

- **Full-Time Non-Salaried Position (Salary paid by the University of Helsinki)** in Communication Laboratory led by Prof. Swades De
- **Job Description:** Conducting research on privacy economics

**Research Assistant, Department of Management Studies, Indian Institute of Technology Delhi (Jan 2017 - Jan 2018)**

- **Full-Time Salaried Position**
- **Job Description:** Conducting research on the application of machine learning in finance, and assisting professors in organizing conference

**Visiting Master Student, School of Electrical Engineering, KAIST (Jul 2015 - Dec 2015)**

- **Full-Time Non-Salaried Position (Salary paid by the Graduate School of Knowledge Service Engineering)** in Cognitive Neuro-robotics Laboratory led by Prof. Jun Tani
- **Job Description:** Conducting research on recurrent neural network-based models for neuro-robotics

**Research Assistant, Graduate School of Knowledge Service Engineering, KAIST (Sept 2014 - Aug 2016)**

- **Supported** by the National Research Foundation of Korea funded Project - *WiseKB: Big data-based self-evolving knowledge base and reasoning platform*, and the KAIST Graduate Scholarship

- **Job Description:** Conducting research on topics within the scope of the WiseKB Project, Writing a research paper
- **CAREER BREAK**
- Family Leave (Sept 2016 - Dec 2016)
- **RESEARCH GRANTS**
- Abbe Grant 2022 [Grant established by German Physicist Ernst Karl Abbe in 1899], Carl-Zeiss-Stiftung
- INDFICORE - 6G Flagship Grant 2022-23
- Walter Ahlström Foundation Grant 2022
- Nokia Scholarship 2021
- HPY Research Foundation Grant 2020
- **RESEARCH OUTPUT**

Total number of peer-reviewed scientific publications: 18, Total number of technical reports: 3, Number of scientific articles under review: 5

#### Journal article/Book Chapter

1. Hoque, M.A., Finley, B., Rao, A., **Kumar, A.**, Ammar, M., Hui, P. and Tarkoma, S., 2022. Context-driven Encrypted Multimedia Traffic Classification on Mobile Devices. In *Pervasive and Mobile Computing Journal*, Elsevier. <https://doi.org/10.1016/j.pmcj.2022.101737>
2. **Kumar, A.**, Finley, B., Braud, T., Tarkoma, S. and Hui, P., 2021. Sketching an AI Marketplace: Tech, Economic, and Regulatory Aspects. *IEEE Access*, 9, pp.13761-13774. <https://doi.org/10.1109/ACCESS.2021.3050929>
3. **Kumar, A.**, Braud, T., Kwon, Y.D. and Hui, P., 2020. Aquilis: Using Contextual Integrity for Privacy Protection on Mobile Devices. *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies*, 4(4), pp.1-28. <https://doi.org/10.1145/3432205>
4. Pal, R., Crowcroft, J., Wang, Y., Li, Y., De, S., Tarkoma, S., Liu, M., Nag, B., **Kumar, A.** and Hui, P., 2020. Preference-Based Privacy Markets (vol 8, pg 146006, 2020). *IEEE Access*, 9, pp.14179-14180. <https://doi.org/10.1109/ACCESS.2020.3014882>
5. Pal, R., Psounis, K., Crowcroft, J., Kelly, F., Hui, P., Tarkoma, S., **Kumar, A.**, Kelly, J., Chatterjee, A., Golubchik, L. and Sastry, N., 2020. When are cyber blackouts in modern service networks likely? A network oblivious theory on cyber (re) insurance feasibility. *ACM Transactions on Management Information Systems (TMIS)*, 11(2), pp.1-38. <https://doi.org/10.1145/3386159>
6. Pal, R., Lin, S.H., Ahuja, A., Jagadeesan, N., **Kumar, A.** and Golubchik, L., 2019. Are Federated Cloud Sharing Systems Sustainable?: On Dynamic Sharing Markets and Their Stability. *IEEE Transactions on Sustainable Computing*, 5(4), pp.485-500. <https://doi.org/10.1109/TSUSC.2019.2955093>
7. Pal, R., Ahuja, A., Lin, S.H., **Kumar, A.**, Golubchik, L. and Jagadeesan, N.A., 2019. On the Economic Sustainability of Cloud Sharing Systems Are Dynamic Single Resource Sharing Markets Stable?. *ACM SIGMETRICS Performance Evaluation Review*, 46(4), pp.2-10. <https://doi.org/10.1145/3372315.3372317>

## Conference/Workshop Proceedings

8. **Kumar, A.**, Mohsseni, V., Pirttikangas, S., and Tarkoma, S., 2022. AI Marketplace: Semantic Interoperability across AI Ecosystem, *FCAI AI Day* (Poster).
9. **Kumar, A.**, and Segev, A., 2022. Bayesian Ensembled Knowledge Extraction Strategy for Online Portfolio Selection. In *2022 IEEE International Conference on Big Data Workshop (The Fifth Workshop on Big Data for Economic and Business Forecasting)*. (pp. 1-10).  
<http://dx.doi.org/10.1109/bigdata55660.2022.10020708>
10. **Kumar, A.**, Lee, L.H., Chauhan, J., Su, X., Hoque, M.A., Pirttikangas, S., Tarkoma, S., and Hui, P., 2022. PassWalk: Spatial Authentication Leveraging Lateral Shift and Gaze on Mobile Headsets. In *Proceedings of the 30th ACM International Conference on Multimedia (MM '22)* Association for Computing Machinery, New York, NY, USA, 952–960. <https://doi.org/10.1145/3503161.3548252>
11. **Kumar, A.**, Khimani, V., Chatzopoulos, D. and Hui, P., 2022. FedClean: A Defense Mechanism Against Parameter Poisoning Attacks in Federated Learning. In *2022 IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP '22)*. IEEE. 5 Pages.  
<https://doi.org/10.1109/ICASSP43922.2022.9747497>
12. Hoque, M.A., Finley, B., Rao, A., **Kumar, A.**, Ammar, M., Hui, P. and Tarkoma, S., 2022. Context-driven Encrypted Multimedia Traffic Classification on Mobile Devices. In *2022 IEEE International Conference on Pervasive Computing and Communications (PerCom '22)* (pp. 1-11), IEEE.  
<https://doi.org/10.1109/PerCom53586.2022.9762389>
13. **Kumar, A.**, Braud, T., Lee, L.H. and Hui, P., 2021. Theophany: Multimodal Speech Augmentation in Instantaneous Privacy Channels. In *Proceedings of the 29th ACM International Conference on Multimedia (MM '21)*. Association for Computing Machinery, New York, NY, USA, 2056–2064. [Best Paper Award Nomination] <https://doi.org/10.1145/3474085.3475507>
14. Kwon, Y. D., Chauhan, J., **Kumar, A.**, Hui, P. and Mascolo, C., 2021. Exploring System Performance of Continual Learning for Mobile and Embedded Sensing Applications. In *Proceedings of the 6th ACM/IEEE Symposium on Edge Computing (SEC'21)*. Association for Computing Machinery (ACM). 14 pages. [Best Paper Award] <https://arxiv.org/abs/2110.13290>
15. Hoque, M.A., Rao, A., **Kumar, A.**, Ammar, M., Hui, P. and Tarkoma, S., 2020, June. Sensing multimedia contexts on mobile devices. In *Proceedings of the 30th ACM Workshop on Network and Operating Systems Support for Digital Audio and Video* (pp. 40-46), co-located with MMSys.  
<https://doi.org/10.1145/3386290.3396935>
16. Lee, L.H., **Kumar, A.**, Pirttikangas, S. and Ojala, T., 2020, July. When Augmented Reality Meets Edge AI: A Vision of Collective Urban Interfaces. In *INTERDISCIPLINARY URBAN AI: DIS Workshop*.  
<https://researchportal.helsinki.fi/en/publications/when-augmented-reality-meets-edge-ai-a-vision-of-collective-urban>
17. **Kumar, A.**, Braud, T., Tarkoma, S. and Hui, P., 2020, March. Trustworthy AI in the age of pervasive computing and big data. In *2020 IEEE International Conference on Pervasive Computing and Communications Workshops (PerCom Workshops)* (pp. 1-6). IEEE.  
<https://doi.org/10.1109/PerComWorkshops48775.2020.9156127>
18. **Kumar, A.**, Grover, P., Kar, A.K. and Pani, A.K., 2017, November. IT Consulting: A Systematic Literature Review. In *Digital Nations—Smart Cities, Innovation, and Sustainability: 16th IFIP WG 6.11 Conference on e-Business, e-Services, and e-Society, I3E 2017, Delhi, India, November 21–23, 2017, Proceedings* (Vol. 10595, p. 474). Springer. [https://doi.org/10.1007/978-3-319-68557-1\\_42](https://doi.org/10.1007/978-3-319-68557-1_42)

## Technical Reports

1. Kokkonen, H., Lovén, L., Motlaghk, N. H., Partala, J., **Kumar, A.**, Gonzalez-Gil, A., Sola, E., Angulo, I., Liyanage, M., Leppanen, T., Nguyen, T., Kostakos, P., 2022, Autonomy and Intelligence in the Computing Continuum: Challenges, Enablers, and Future Directions, 43 pages.
2. Pal, R., Crowcroft, J., **Kumar, A.**, Hui, P., Haddadi, H., De, S., Ng, I., Tarkoma, S. & Mortier, R. 2018 'Privacy markets in the Apps and IoT age' Technical Report, no. 925, University of Cambridge.  
<https://www.cl.cam.ac.uk/techreports/UCAM-CL-TR-925.html>
3. Pal, R., Psounis, K., **Kumar, A.**, Crowcroft, J., Hui, P., Golubchik, L., Kelly, J., Chatterjee, A. & Tarkoma, S. 2018 Are cyber-blackouts in service networks likely?: Implications for Aggregate Cyber Risk Management Technical Report, no. 926, University of Cambridge.  
<https://www.cl.cam.ac.uk/techreports/UCAM-CL-TR-926.html>

## Scientific articles currently under review

4. **Kumar, A.**, Braud, T., Lee, L.H., Tarkoma, Sasu, and Hui, P., 2022. Augmenting Contextual Integrity for Privacy Protection of Vulnerable Populations. *ACM Conference* (pp. 1-7).
5. **Kumar, A.**, Ul Haq, E., Lee, L.H, Braud, T., and Hui, P., 2022. The Philosophy of the World Wide Web in the Age of Data Capitalism and Misinformation. *ACM Conference*. (pp. 1-19).
6. Kokkonen, H., Lovén, L., Motlaghk, N. H., Partala, J., **Kumar, A.**, Gonzalez-Gil, A., Sola, E., Angulo, I., Liyanage, M., Leppanen, T., Nguyen, T., Kostakos, P., 2022, Autonomy and Intelligence in the Computing Continuum: Challenges, Enablers, and Future Directions. *Proceedings of the IEEE*, 43 pages.
7. Lee, L.H., Lin, Z., Hu, R., Gong, Z., **Kumar, A.**, Li, T., Li, S., and Hui, P., 2021, October. (Under Review) When Creators Meet the Metaverse: A Survey on Computational Arts (36 pages) **[Joint Second Co-author]**  
<https://arxiv.org/abs/2111.13486>
8. Lee, L.H., Braud, T., Zhou, P., Wang, L., Xu, D., Lin, Z., **Kumar, A.**, Bermejo, C., and Hui, P., 2021, October. (Under Review) All One Needs to Know about Metaverse: A Complete Survey on Technological Singularity, Virtual Ecosystem, and Research Agenda. In *Proceedings of the IEEE* (68 pages) **[Joint Second Co-author]** <https://arxiv.org/abs/2110.05352>

## ● RESEARCH SUPERVISION AND LEADERSHIP EXPERIENCE

### ● Mentoring

- a. Wei Geng, Master/PhD Candidate, The Hong Kong University of Science and Technology, Guangzhou (Sept 2022 - Present), Topic: Data Minimization in Extended Reality
  - b. Juan Vazquez Moreno, Master Thesis Student, University of Oulu (Sept 2022 - Present), In partnership with Oura Ring Oy, Topic: Optimizing Power Consumption in Low-Resource Embedded Devices
  - c. Mehmet Mert Beşe, Doctoral Researcher, Technical University of Munich, 2022 - Present, Topic: Efficient Resource Orchestration in 5G Heterogeneous Networks
  - d. Vivek Khimani, Undergraduate Research Intern from Drexel University, Next Job: Meta (previously Facebook), 2020, Topic: Security of Federated Learning Systems
- Project Manager, “*HoloNet: Holographic Communications and Networking in the Next Generation Wireless Networks*”, In collaboration with the University of Minnesota - Twin Cities. Supported by the Finnish-American Research & Innovation Accelerator (FARIA), Feb 2023 - Dec 2024.

- Project Manager, “*EFFICACY: Energy-Efficient Urban Sensing in Developing Regions under Extreme Budget and Network Constraints*”, In collaboration with the Indian Institute of Technology Delhi. Supported by the Finnish Indian Consortia for Research and Education (FICORE), May 2022 - Dec 2023
- Leading a group of master's students and interns for deliverables in FRACTAL Project (Horizon 2020) at the University of Oulu (June 2022 - August 2022)
- Principal Investigator, “*Digital Twin for Healthcare*”, With Prof. Jagmohan Chauhan at the University of Southampton, and Dr. Gloria Hyunjung Kwak at Massachusetts General Hospital. Supported by the Walter Ahlström Foundation, 2022.
- Leading research on “*Trust, Informed Consent, and Accountability in Metaverse*” in Metaverse Key Ops Team (8 members from different universities across the world, spearheaded by Prof. Pan Hui), 2021.

## • TEACHING MERITS

- Instructor, **Distributed Systems (5 ECTS, Master/PhD Level)**, Spring 2023, University of Oulu
- Instructor, **Internet of Things (5 ECTS, Master/PhD Level)**, Fall 2022, University of Oulu
- Teaching Assistant, **Network Analysis (5 ECTS, Master/PhD Level)**, Spring 2019, University of Helsinki, *Instructor: Pan Hui, Michael Mathioudakis*
- Teaching Assistant, **Distributed Systems (5 ECTS, Master/PhD Level)**, Fall 2018, University of Helsinki, *Instructor: Pan Hui, Huber Flores*
- Teaching Assistant, **Network Game Theory (Summer Course, PhD Level)**, Summer 2018, Indian Institute of Management Ahmedabad, *Instructor: Ranjan Pal*
- Teaching Assistant, **Statistics for Economics and Management (3 ECTS, Bachelor Level)**, Spring 2014, Handong Global University, *Instructor: Yoon Ra Lee*

## • AWARDS AND HONORS

- Abbe Grant 2022 [Grant established by German Physicist Ernst Karl Abbe in 1899], Carl-Zeiss-Stiftung
- Young Researcher @9th Heidelberg Laureate Forum 2022, Heidelberg, Germany
- KAIST Biannual Research Breakthrough Honour 2022
- Best Paper Award, ACM/IEEE Symposium on Edge Computing 2021
- Best Paper Award Nomination, ACM Conference on Multimedia 2021
- ACM SIGMOBILE Student Travel Grant, 2018
- KAIST Graduate Scholarship, Sept 2014 - May 2016
- Handong Cornerstone Scholarship, Mar 2014 - Jun 2014
- NIIED Scholarship by Korean Government, Sep 2013 - Dec 2013
- 2nd Prize in Algo-Z-Ripper: Algorithm Design Contest, CORONA 2012
- 3rd Prize in TechQuiddich: Digital Circuit Design Contest, CORONA 2011
  - CORONA is the annual technical festival of the National Institute of Technology Patna.

## • OTHER ACADEMIC MERITS

- Member of Organizing Team, MegaSense Environmental Sensing Project Competition (2022)
- Member of the Finnish Artificial Intelligence Society
- Publicity Chair, MetaBuild Workshop, Co-located with IEEE VR 2022
- Technical Program Committee Member
  - EnvSys Workshop and NetAISys Workshop, co-located with ACM MobiSys 2023
  - RBCDSAI-FAI Conference on Deployable AI (DAI) 2022



- ACM International Conference on Multimodal Interaction 2021
  - International Conference on Mobile Ubiquitous Computing, Systems, Services and Technologies 2021
  - European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases 2020
- Reviewer
  - IEEE Computational Intelligence
  - IEEE Network
  - IEEE Transactions on Computers
  - Computer Networks (Elsevier Journal)
  - Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies 2022
  - IEEE Access
  - European Conference on Information Systems 2022
  - Higher Education Pedagogies (Taylor & Francis Journal)
  - IEEE Intelligent Systems
  - IEEE Pervasive Systems
  - ACM Conference on Mobile Human-Computer Interaction 2021
  - IEEE Virtual Reality and 3D User Interfaces 2021
  - International Conference on Artificial Intelligence and Statistics 2021
  - Nordic Conference on Human-Computer Interaction 2020
- Shadow Program Committee Member
  - ACM Internet Measurement Conference 2018

## ● SCIENTIFIC AND SOCIETAL IMPACTS

### Invited Talks

- *Computing Systems Beyond Moore's Law and Dennard Scaling*, Organizer: Osaka University, 22 August 2022
- *Security of Distributed Machine Learning Systems*, Organizer: Chair of Connected Mobility, TU Munich, 08 June 2022
- *The Philosophy of the Web in the Age of Data Capitalism and Misinformation*, Organizer: The Web Conference (WWW), History of the Web Track, 29 April 2022
- *Slice-Aware Mobility Robust Optimization in Self-Organizing Networks using Deep Reinforcement Learning*, Organizer: Nokia Bell Labs, 29 Sept 2021

### Interview by Media Outlet

- 2022, 11 Feb, Could 'expiration dates' for AI systems help prevent bias? In *VentureBeat* (American Technology Media Outlet)  
<https://venturebeat.com/2022/02/11/could-expiration-dates-for-ai-systems-help-prevent-bias/>

### Media Coverage of the research

- 2022, 09 Jan, Level up: Tour the new battlegrounds of the gaming world. In *Hindustan Times*  
<https://www.hindustantimes.com/lifestyle/art-culture/level-up-tour-the-new-battlegrounds-of-the-gaming-world-101641647400209.html>

- Relevant Article: “All One Needs to Know about Metaverse: A Complete Survey on Technological Singularity, Virtual Ecosystem, and Research Agenda”
- 2021, 31 Oct, 我們離元宇宙Big Bang有幾近？——專訪科學家許彬. In *Ming Pao Hong Kong*.  
<https://m.mingpao.com/pns/副刊/article/20211031/s00005/1635616872678/我們離元宇宙big-bang有幾近-專訪科學家許彬>
  - Relevant Article: “All One Needs to Know about Metaverse: A Complete Survey on Technological Singularity, Virtual Ecosystem, and Research Agenda”
- 2021, 30 Oct, Le métavers sera-t-il vraiment l’Internet du futur ?, In *01net.com* (French Technology Media Outlet) <https://www.01net.com/actualites/le-metavers-sera-t-il-vraiment-l-internet-du-futur-2050534.html>
  - Relevant Article: “All One Needs to Know about Metaverse: A Complete Survey on Technological Singularity, Virtual Ecosystem, and Research Agenda”
- 2021, 25 Oct, 中国科大、香港科大等五大高校联合发布元宇宙全方位研究报告. In *University of Science and Technology of China News*. <http://cybersec.ustc.edu.cn/2021/1025/c23831a526829/page.htm>
  - Relevant Article: “All One Needs to Know about Metaverse: A Complete Survey on Technological Singularity, Virtual Ecosystem, and Research Agenda”
- 2021, 12 Oct, Metaverse. In *Wikipedia*. <https://en.wikipedia.org/wiki/Metaverse>
  - Relevant Article: “All One Needs to Know about Metaverse: A Complete Survey on Technological Singularity, Virtual Ecosystem, and Research Agenda”
- 2021, 21 June. In defense of a transparent economy for data capitalism. In *Forbes*.  
<https://www.forbesindia.com/article/iim-calcutta/in-defense-of-a-transparent-economy-for-data-capitalism/68691/1>
  - Relevant Article: “Preference-Based Privacy Markets”
- 2020, 30 April. The feasibility of cyber-risk management to ensure social good. In *Forbes*.  
<https://www.forbesindia.com/article/iim-calcutta/the-feasibility-of-cyber-risk-management-to-ensure-social-good/59095/1>
  - Relevant Article: “When are cyber blackouts in modern service networks likely? A network oblivious theory on cyber (re) insurance feasibility. ”
- 2020, 08 May. Cyber insurance providers are excessively cautious. In *University of Helsinki News*.  
<https://www.helsinki.fi/en/news/people-and-technology/cyber-insurance-providers-are-excessively-cautious>
  - Relevant Article: “When are cyber blackouts in modern service networks likely? A network oblivious theory on cyber (re) insurance feasibility.
- 2020, 27 May, When is the likelihood of a cyber blackout? In *King's College London News*.  
<https://www.kcl.ac.uk/news/when-is-the-likelihood-of-a-cyber-blackout>
  - Relevant Article: “When are cyber blackouts in modern service networks likely? A network oblivious theory on cyber (re) insurance feasibility. ”
- 2020, 11 March. How To Build An AI Marketplace For The Next Decade. In *Analytics India Magazine*.  
<https://analyticsindiamag.com/how-to-build-an-ai-marketplace-for-the-next-decade/>
  - Relevant Article: “Sketching an AI Marketplace: Tech, Economic, and Regulatory Aspects”
- 2019, 11 November. Only appropriate data. In *The Economic Times*.  
<https://economictimes.indiatimes.com/blogs/et-commentary/only-appropriate-data/>
  - Relevant Article: “Preference-Based Privacy Markets”

## ● OTHER MERITS

- Mentor @Think Africa (Helsinki-based NGO working for the welfare of minors of African descent)