# Sohail Khan

WebPage

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## **Employment History**

Oct 2021 – *Present* PhD Research Fellow, SFI MediaFutures, Bergen, Norway.

Sept 2023 – Oct 2023 Research Intern, Wolftech Broadcast Solutions AS, Bergen, Norway.

Oct 2022 – Dec 2022 **Research Intern,** Faktisk Verifiserbar, Oslo, Norway.

Dec 2020 – May 2021 Research Assistant, Mohamed bin Zayed University of AI, Abu Dhabi, UAE.

Sept 2020 – Dec 2020 **Research Assistant,** CYENS Centre of Excellence, Nicosia, Cyprus.

## **Education**

Oct 2021 – Present Ph.D. Computational Visual Content Verification,
University of Bergen, Norway.

Sept 2018 – Nov 2019 M.Sc. Cybersecurity and Artificial Intelligence, University of Sheffield, UK.
Thesis title: Phishing Websites Classification using Deep Learning.

## **Research Publications**

#### **Journal Articles**

- 1 Khan, S.A., Moholdt, E., & Dang-Nguyen, D. T. (2025). Rethinking Detection: A Counter-Intuitive Method for Uncovering Out-of-Context Image-Caption Pairs in News. Under Review at Multimedia Tools and Applications.
- Dierickx, L., Opdahl, A., **Khan, S.A.**, Lindén, C.-G., & Rojas, D. C. G. (2024). **A Data-centric Approach for Ethical and Trustworthy AI in Journalism**. *Ethics and Information Technology*, 26, 64. Retrieved from **6** https://api.semanticscholar.org/CorpusID: 272969921
- Khan, S.A., Dierickx, L., Furuly, J. G., Vold, H. B., Tahseen, R., Lindén, C.-G., & Dang-Nguyen, D.-T. (2024). Debunking War Information Disorder: A Case Study in Assessing the uUse of Multimedia Verification Tools. Journal of the Association for Information Science and Technology (JASIST). Retrieved from Ohttps://api.semanticscholar.org/CorpusID:274309327
- 4 Khan, S.A., & Dang-Nguyen, D.-T. (2023). Deepfake Detection: Analyzing Model Generalization Across Architectures, Datasets, and Pre-Training Paradigms.

  IEEE Access. & doi:10.1109/ACCESS.2023.3348450
- Khan, S.A., Sheikhi, G., Opdahl, A. L., Rabbi, F., Stoppel, S., Trattner, C., & Dang-Nguyen, D.-T. (2023). Visual User-Generated Content Verification in Journalism: An Overview. IEEE Access, 11.

  doi:10.1109/ACCESS.2023.3236993
- Khan, W., Hussain, A., Khan, S.A., Al-Jumailey, M., Nawaz, R., & Liatsis, P. (2021). Analysing the Impact of Global Demographic Characteristics Over the COVID-19 Spread Using Class Rule Mining and Pattern Matching. Royal Society Open Science, 8.

  Odoi:https://doi.org/10.1098/rsos.201823

## **Conference Proceedings**

- Sheikhi, G., Touileb, S., & Khan, S.A. (n.d.). Automated Claim Detection for Fact-checking: A Case Study using Norwegian Pre-trained Language Models. In Proceedings of the 24rd nordic conference on computational linguistics (NODALIDA'23).
- Dang-Nguyen, D.-T., **Khan, S.A.**, Riegler, M. A., Halvorsen, P., Tran, A.-D., Dao, M.-S., & Tran, M.-T. (2024). **Overview of the Grand Challenge on Detecting Cheapfakes at ACM ICMR 2024**. In *Proceedings of the 2024 International Conference on Multimedia Retrieval (ICMR'24)*. Retrieved from <code>% https://api.semanticscholar.org/CorpusID:270337055</code>
- 3 Khan, S.A., & Dang-Nguyen, D.-T. (2024). CLIPping the Deception: Adapting Vision-Language Models for Universal Deepfake Detection. In Proceedings of the 2024 International Conference on Multimedia Retrieval (ICMR'24) (pp. 1006–1015).
- Moholdt, E., Khan, S.A., & Dang-Nguyen, D. T. (2023). Detecting Out-of-Context Image-Caption Pairs in News: A Counter-Intuitive Method. In Proceedings of the 30th ACM International Conference on Content-Based Multimedia Indexing (CBMI'23), Orleans, France.
- Aneja, S., Midoglu, C., Dang-Nguyen, D. T., **Khan, S.A.**, Riegler, M., Halvorsen, P., ... Adsumilli, B. (2022). **ACM Multimedia Grand Challenge on Detecting Cheapfakes**. In *Proceedings of the 29th ACM International Conference on Multimedia (ACMMM'22)*, Lisbon, Portugal.
- 6 Khan, S.A., & Dang-Nguyen, D. T. (2022). Hybrid Transformer Network for Deepfake Detection. In Proceedings of the 29th ACM International Conference on Content-Based Multimedia Indexing (CBMI'22), Graz, Austria.
- 7 Khan, S.A., Artusi, A., & Dai, H. (2021). Adversarially Robust Deepfake Media Detection using Fused Convolutional Neural Network Predictions. In *Preprint*, https://arxiv.org/abs/2102.05950.
- 8 Khan, S.A., & Dai, H. (2021). Video Transformer for Deepfake Detection with Incremental Learning. In Proceedings of the 29th ACM International Conference on Multimedia (ACMMM'21) (pp. 1821–1828). Chengdu, China.
- 9 Khan, S.A., Khan, W., & Hussain, A. (2020). Phishing Attacks and Websites Classification using Machine Learning and Multiple Datasets (A Comparative Analysis). In Proceedings of International Conference on Intelligent Computing (ICIC'20) (pp. 301–313). Bari, Italy.

# Teaching Experience

#### • Ethics in Artificial Intelligence

I was responsible for weekly seminar groups for the course AIKI210: Ethics in Artificial Intelligence, facilitating discussions on the societal, legal, and economic impacts of AI. The course covered topics such as explainable AI (XAI), fairness, algorithmic accountability, and responsible AI use. I was also responsible for reviewing and grading student assignments.

#### · Machine Learning

I was a teaching assistant for INFO284: Machine Learning, where I led seminar groups focused on programming exercises and a final group programming exam. The course aimed to provide students with theoretical knowledge of machine learning principles, contemporary algorithms, and their applications in data analysis, including advantages and limitations.

My primary responsibilities included assisting students with programming exercises during lab sessions and guiding them through the group exam. Additionally, I collaborated with the course leader, Prof. Bjørnar Tessem, in grading the group exam, which accounted for 30% of the total course grade.

#### · Methods in Artificial Intelligence

I developing and grading the final exam for INFO<sub>1</sub>80: Methods in Artificial Intelligence. The course covered fundamental topics, including search algorithms, neural networks, convolutional neural networks, attention mechanisms, recurrent neural networks, and optimization.

## **Skills & Certifications**

Coding Python, PHP, SQL, HTML/CSS, Lagrange, ...

ML/DL PyTorch, KERAS, Scikit-Learn, OpenCV, Numpy, Pandas, ...

GEN AI AWS Bedrock, LlamaIndex, LangChain, Ollama.

Web Dev | Wordpress, Bootstrap, Django.

Certifications AWS Solutions Architect Associate

Other Technologies AWS, GCP, Docker, Apache Spark, SLURM

# **Academic Service**

- International Journal of Computer Vision (IJCV)
- ACM SIGGRAPH
- ACM Transactions on Multimedia Computing, Communications, and Applications
- ACM International Conference on Multimedia Retrieval

## References

Duc Tien Dang Nguyen Andreas L. Opdahl

Professor Professor
University of Bergen, University of Bergen,

Norway. Norway.

Sergej Stoppel

Chief Innovation Officer Wolftech Broadcast Solutions AS, Bergen, Norway.