Paschalis Giakoumoglou

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EDUCATION

University College London (UCL), London, United Kingdom — Oct 2026 – Present
PhD in Computer Science
Research focus: Foundation Models for Time Series
Supervisor: Prof. Vasileios Lampos

Aristotle University of Thessaloniki, Thessaloniki, Greece — September 2019 — November 2024
Integrated MSc in Electrical and Computer Engineering — GPA: 9.42/10.00, Class Rank: 2nd
Thesis title: "*Detection of Image Manipulations Created Using Convolutional Neural Networks and Diffusion Models*"
Supervised by Prof. Panagiotis Petrantonakis

RESEARCH EXPERIENCE

University College London (UCL), London, United Kingdom — Oct 2026 – Present
PhD Researcher, Department of Computer Science

- Research on foundation models for time series

Centre for Research and Technology Hellas, Thessaloniki, Greece — Jan 2025 – Feb 2026
Research Assistant, supervised by Dr. Symeon Papadopoulos and Dr. Ioannis Kompatsiaris

- Researched representation learning architectures for vision and vision-language models, developing robust representations for generative image assessment and multimedia forensics.
- Designed novel methods and benchmarks for digital forgery detection and localization, including deepfake and diffusion-based image manipulation detection.
- Evaluated multimodal and generative models, including their robustness, reliability, and harmful content generation capabilities, within the AI4TRUST project.

PUBLICATIONS

[1] N. Giakoumoglou, P. Giakoumoglou, and T. Stathaki, "A Stochastic Latent Variable Generalization of Joint-Embedding Predictive Architectures," in *Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision (WACV)*, 2027. arXiv: `2611.09302 [cs.LG]`. [Online]. Available: `https://arxiv.org/abs/2611.09302`.

[2] N. Giakoumoglou, P. Giakoumoglou, T. Stathaki, and S. Papadopoulos, "Generalizable AI-Generated Image Detection with Embedding-Space Explanations," in *Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision (WACV)*, 2027. arXiv: `2611.04111 [cs.CV]`. [Online]. Available: `https://arxiv.org/abs/2611.04111`.

[3] N. Giakoumoglou, P. Giakoumoglou, K. M. Papadopoulos, A. Floros, and T. Stathaki, "What makes synthetic hard negatives work in vision-language pretraining?" In *Asian Conference on Computer Vision (ACCV)*, 2026.

[4] P. Giakoumoglou and S. Papadopoulos, "Diffusionprint: Learning generative fingerprints for diffusion-based inpainting localization," in *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) Workshops*, 2026. [Online]. Available: `https://arxiv.org/abs/2604.12443`.

[5] P. Giakoumoglou, M. Schinas, and S. Papadopoulos, "Harmful content generation in text-to-image models: Capabilities and moderation limitations," *ACM Transactions on Intelligent Systems and Technology*, 2026, Accepted for publication.

[6] P. Giakoumoglou, D. Karageorgiou, S. Papadopoulos, and P. C. Petrantonakis, "SAGI: Semantically aligned and uncertainty guided AI image inpainting," in *Proceedings of the IEEE/CVF International Conference on Computer Vision (ICCV)*, 2025. arXiv: `2502.06593 [cs.CV]`. [Online]. Available: `https://arxiv.org/abs/2502.06593`.

[7] H. Mareen, D. Karageorgiou, P. Giakoumoglou, P. Lambert, S. Papadopoulos, and G. V. Wallendael, "TGIF2: Extended text-guided inpainting forgery dataset & benchmark," *EURASIP Journal on Information Security*, 2025. [Online]. Available: `https://arxiv.org/abs/2603.28613`.

ACADEMIC SERVICE

Journal Reviewer, IEEE Transactions on Multimedia
Reviewed manuscripts on topics related to multimedia processing, deep learning, and computer vision.

AWARDS

UCL Computer Science Studentship — Oct 2026 – Present
Studentship and postgraduate funding from the Department of Computer Science, University College London.

Academic Excellence Award, Greek Ministry of Education — 2016 – 2019
Awarded for academic excellence in all years of secondary education.

SKILLS

- **Programming:** Python, MATLAB, Java
- **Software:** PyTorch, OpenCV, Linux (Ubuntu)
- **Languages:** Greek (native), English (fluent-Certificate of Proficiency in English), German (advanced intermediate level)