

John Pavlopoulos

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SUMMARY

Assistant Professor specializing in Machine Learning for Information Retrieval and Data Mining of large document collections at the Department of Informatics, Athens University of Economics and Business, Greece. He holds affiliations with Archimedes/Athena RC, Greece, and Stockholm University, Sweden. Previously, he served as a Senior Lecturer (fixed-term) in NLP and Data Science at the Department of Computer and Systems Sciences, Stockholm University, Sweden, and was a visiting scholar at the Venice Centre for Digital and Public Humanities, Ca' Foscari University of Venice, Italy. His research focuses on Machine Learning for Natural Language Processing (NLP), with a strong emphasis on applications in Digital Humanities. His work has been published in top-tier journals, such as *Machine Learning* and *Nature*, and presented at leading NLP conferences, such as ACL and EMNLP.

WORK EXPERIENCE

Assistant Professor	May 2024 - present
Department of Informatics, Athens University of Economics and Business, Greece <i>Machine Learning for Information Retrieval and Data Mining of Large Document Collections</i>	
Visiting Scholar	Dec 2021 - Aug 2022
The Venice Centre for Digital and Public Humanities (VeDPH), Ca'Foscari, Italy	
Senior Lecturer (fixed-term)	Jun 2020 - Nov 2021
Department of Computer and System Sciences, Stockholm University, Sweden	
Postdoctoral researcher	Jun 2019 - May 2020
Department of Computer and System Sciences, Stockholm University, Sweden	

PROJECTS

LLM3	Link to Website
This project develops and evaluates mediation agents based on Large Language Models that will actively participate in online discussions, with or without additional human mediation.	
EFRA	Link to Website
EU-funded project (2023-2026) for AI-enabled food risk prevention.	
NLP for Digital Art History	Link to Website
A combination 'distant viewing' of visual materials with NLP and 'close reading' of the artefacts through formal and contextual analysis to study Japanese early modern woodblock prints, so-called ukiyo-e ('pictures of the floating world'), produced between the seventeenth and mid-nineteenth century.	

EDUCATION

2010 - 2014	PhD (Aspect-based Sent. Analysis) at Athens University of Economics and Business
2008 - 2009	MSc (AI) at University of Edinburgh
2001 - 2007	BSc (Applied Math. & Phys. Sciences) at National Technical University of Athens

PUBLICATIONS

- Pavlopoulos, John, John Vrettaros, et al. (2008). “The Development of a Self-assessment System for the Learners Answers with the Use of GPNN”. In: *Emerging Technologies and Information Systems for the Knowledge Society: First World Summit on the Knowledge Society, WSKS 2008, Athens, Greece, September 24-26, 2008. Proceedings 1*. Springer, pp. 332–340.
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- Korre, Katerina and John Pavlopoulos (2020). “Errant: Assessing and improving grammatical error type classification”. In: *Proceedings of the The 4th Joint SIGHUM Workshop on Computational Linguistics for Cultural Heritage, Social Sciences, Humanities and Literature*, pp. 85–89.
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- Pavlopoulos, John and Panagiotis Papapetrou (2020). “Clinical predictive keyboard using statistical and neural language modeling”. In: *2020 IEEE 33rd International Symposium on Computer-Based Medical Systems (CBMS)*. IEEE, pp. 293–296.
- Korre, Katerina et al. (2021). “ELERRANT: Automatic grammatical error type classification for Greek”. In: *Proceedings of the International Conference on Recent Advances in Natural Language Processing (RANLP 2021)*, pp. 708–717.
- Kougia, Vasiliki and John Pavlopoulos (2021). “Multimodal or text? retrieval or BERT? benchmarking classifiers for the shared task on hateful memes”. In: *Proceedings of the 5th Workshop on Online Abuse and Harms (WOAH 2021)*, pp. 220–225.
- Kougia, Vasiliki, John Pavlopoulos, Panagiotis Papapetrou, et al. (2021). “RTEX: A novel framework for ranking, tagging, and explanatory diagnostic captioning of radiography exams”. In: *Journal of the American Medical Informatics Association* 28.8, pp. 1651–1659.
- Ljungman, Jimmy et al. (2021). “Automated grading of exam responses: an extensive classification benchmark”. In: *Discovery Science: 24th International Conference, DS 2021, Halifax, NS, Canada, October 11–13, 2021, Proceedings 24*. Springer, pp. 3–18.

- Miliou, Ioanna et al. (2021). “Sentiment nowcasting during the COVID-19 pandemic”. In: *Discovery Science: 24th International Conference, DS 2021, Halifax, NS, Canada, October 11–13, 2021, Proceedings 24*. Springer, pp. 218–228.
- Olczak, Jakub et al. (2021). “Presenting artificial intelligence, deep learning, and machine learning studies to clinicians and healthcare stakeholders: an introductory reference with a guideline and a Clinical AI Research (CAIR) checklist proposal”. In: *Acta orthopaedica* 92.5, pp. 513–525.
- Pavlopoulos, John and Panagiotis Papapetrou (2021). “Customized Neural Predictive Medical Text: A Use-Case on Caregivers”. In: *Artificial Intelligence in Medicine: 19th International Conference on Artificial Intelligence in Medicine, AIME 2021, Virtual Event, June 15–18, 2021, Proceedings*. Springer, pp. 438–443.
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- Liagkou, Konstantina et al. (2022). “A study of distant viewing of ukiyo-e prints”. In: *Proceedings of the Thirteenth Language Resources and Evaluation Conference*, pp. 5879–5888.
- Paparigopoulou, Asimina et al. (2022). “Dating Greek papyri images with machine learning”. In: *ICDAR Workshop on Computational Paleography*, <https://doi.org/10.21203/rs>. Vol. 3.
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- Pavlopoulos, John, Leo Laugier, et al. (2022). “From the detection of toxic spans in online discussions to the analysis of toxic-to-civil transfer”. In: *Proceedings of the 60th Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers)*, pp. 3721–3734.
- Pavlopoulos, John et al. (2022). “Sentiment analysis of Homeric text: The 1st Book of Iliad”. In: *Proceedings of the Thirteenth Language Resources and Evaluation Conference*, pp. 7071–7077.
- Platanou, Paraskevi et al. (2022). “Handwritten paleographic Greek text recognition: A century-based approach”. In: *Proceedings of the Thirteenth Language Resources and Evaluation Conference*, pp. 6585–6589.
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- Nanetti, Andrea et al. (2023). “Sentiment Analysis of Primary Historical Sources”. In: *2023 IEEE International Conference on Data Mining Workshops (ICDMW)*. IEEE, pp. 767–772.
- Pavlopoulos, John and Maria Konstantinidou (2023). “Computational authorship analysis of the Homeric poems”. In: *International Journal of Digital Humanities* 5.1, pp. 45–64.
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