

Personal information

Name	Dimitris Gkoumas
Current Organisation	Queen Mary University of London, School of Electronic Engineering and Computer Science
Contact	e-mail: gkoumasjim@gmail.com , web: https://gkoumasd.github.io

Employment history

Date From To		Name of Organisation and position/ role held.	Type
Jan 2021	-	Queen Mary University of London - Post- doctoral Research Associated: Worked on centred around representation alignment, leveraging human feedback and reinforcement alignment technology for aligning Large Language Models (LLMs) with human preferences and values, LLMs functioning as self-judge ecosystems for evaluation purposes, and evolutionary dynamics within longitudinal linguistics, with a particular focus on applications in mental health and life sciences.	Fixed term (Extended) Full Time
Jun 2021	Dec 2023	Huawei Ireland Research Centre – Research Associated: Worked on semantic programming language representation utilizing computational models and learning-based techniques to capture the meaning of code in an explicit and structured manner with applications in program analysis and compiler design.	Contractor (Extended) Part-time
Sep 2017	Dec 2020	The Open University, UK – Early State Researcher: Worked on innovative computational and neural algorithms for multimodal representation learning, integrating the mathematical framework from Quantum Theory for enhancing human language understanding across linguistic, acoustic, and visual modalities.	Fixed term Full Time
Jan 2016	Sep 2017	Corvinno Technology Transfer Centre, Hungary – Early State Researcher: Engaged in ontology development to improve language adaptation and evolution by creating structured representations of semantic changes and capturing semantic relationships with applications in domains such as education and policymaking.	Fixed term Full Time

Training and qualification history

Date From To		Qualification	Subject	Awarding body	Mark or level
Feb 2024	Apr 2024	Specialisation	Learn Bioinformatics from Scratch (Theory & Practice)	Udemy	-
Nov 2023	Jan 2024	Specialisation	Genomic Data Science	Johns Hopkins University, Coursera	-
Sep 2017	Mar 2021	Ph.D.	Quantum Cognitively Motivated Context-Aware Multimodal Representation Learning for Human Language Analysis	The Open University, UK	Pass with distinction
Sep 2012	Mar 2014	M.Sc.	Information Technology	Aristotle University of Thessaloniki, Greece	9.34/10

Sep 2001	Jun 2005	B.Sc.	Computer Science	Technical University of Crete, Greece	8.5/10
----------	----------	-------	------------------	---------------------------------------	--------

Post-Doctoral

Date of PhD Viva (month and year):	March 2021
------------------------------------	------------

Grant history

Date		Title of grant	Awarding body	Length of grant	Position in the grant	Total amount awarded
From	To					
Dec 2023	-	Creating time sensitive sensors from language & heterogeneous user generated content	UKRI/EPSCRC Turing AI Fellowship (Grant: EP/V030302/1)	4 years	Post-doctoral Research Associated	£1,227,974
Jun 2021	Dec 2023	Trustworthy and Open-Source Software Engineering	Huawei Ireland Research Centre Grant	3 years	Research Associated	-
Jan 2020	Dec 2023	Mobile Sensing of Altered EveryDay Function in Early Alzheimer's Disease	Wellcome Trust (Grant: 213939/Z/18/Z)	3 years	Post-doctoral Research Associate	£285,740
Sep 2017	Dec 2020	Quantum Information Access and Retrieval Theory	EXCELLENT SCIENCE - Marie Curie Actions. (No: 721321)	4 years	Marie-Curie Early Stage Researcher	€3,461,495
Jan 2016	Sep 2017	EDUWORKS: An EU-wide investigation of labour market matching processes.	European Commission - Marie Curie ITN - FP7-PEOPLE-2012-ITN (No. 608311)	4 years	Marie-Curie Early Stage Researcher	€3,630,338

Prizes and awards

Date	Prizes and Awards
Sep 2017	Marie-Curie Early Stage Researcher Scholarship
Jan 2016	Marie-Curie Early Stage Researcher Scholarship
Jan 2021	Awarded university-sponsored scholarship for excellent academic performance, leading to waived tuition fees in final semester.
Jul 2005	Awarded the Greek State Scholarships Foundation (IKY) Scholarship for Academic Excellence during Bachelor's studies.

List of Outputs

- **Gkoumas, D.** (2024). All in One: Augmenting LLM with Cross-Multimodal Language and Molecule Representation Learning Capabilities. In Proceedings of the 62nd Annual Meeting of the Association for Computational Linguistics. (Forthcoming).
- **Gkoumas, D.**, Wang, B., Tsakalidis, A., Wolters, M., Purver, M., Zubiaga, A., & Liakata, M. (2024). A longitudinal multi-modal dataset for dementia monitoring and diagnosis. *Language Resources and Evaluation*, 1-20.
- Chim, J., Tsakalidis, A., **Gkoumas, D.**, Atzil-Slonim, D., Ophir, Y., Zirikly, A., ... & Liakata, M. (2024, March). Overview of the clpsych 2024 shared task: Leveraging large language models to identify evidence of suicidality risk in online posts. In *Proceedings of the 9th Workshop on Computational Linguistics and Clinical Psychology (CLPsych 2024)* (pp. 177-190).
- **Gkoumas, D.**, Purver, M., & Liakata, M. (2023, December). Reformulating NLP tasks to Capture Longitudinal Manifestation of Language Disorders in People with Dementia. In *Proceedings of the 2023 Conference on Empirical Methods in Natural Language Processing* (pp. 15904-15917).
- **Gkoumas, D.**, Tsakalidis, A., & Liakata, M. (2023, December). A Digital Language Coherence Marker for Monitoring Dementia. In *Proceedings of the 2023 Conference on Empirical Methods in Natural Language Processing* (pp. 16021-16034).
- **Gkoumas, D.**, Li, Q., Yu, Y., & Song, D. (2021). An entanglement-driven fusion neural network for video sentiment analysis. In *Proceedings of the Thirtieth International Joint Conference on Artificial Intelligence* (pp. 1736-1742). International Joint Conferences on Artificial Intelligence Organization.
- **Gkoumas, D.**, Li, Q., Dehdashti, S., Melucci, M., Yu, Y., & Song, D. (2021, May). Quantum cognitively motivated decision fusion for video sentiment analysis. In *Proceedings of the AAAI Conference on Artificial Intelligence* (Vol. 35, No. 1, pp. 827-835).
- Li, Q., **Gkoumas, D.**, Sordoni, A., Nie, J. Y., & Melucci, M. (2021, May). Quantum-inspired neural network for conversational emotion recognition. In *Proceedings of the AAAI Conference on Artificial Intelligence* (Vol. 35, No. 15, pp. 13270-13278).
- **Gkoumas, D.**, Li, Q., Lioma, C., Yu, Y., & Song, D. (2021). What makes the difference? An empirical comparison of fusion strategies for multimodal language analysis. *Information Fusion*, 66, 184-197.
- Li, Q., **Gkoumas, D.**, Lioma, C., & Melucci, M. (2021). Quantum-inspired multimodal fusion for video sentiment analysis. *Information Fusion*, 65, 58-71.
- Upreti, S., **Gkoumas, D.**, & Song, D. (2020). A survey of quantum theory inspired approaches to information retrieval. *ACM Computing Surveys (CSUR)*, 53(5), 1-39.
- **Gkoumas, D.**, Upreti, S., & Song, D. (2018, September). Investigating non-classical correlations between decision fused multi-modal documents. In *International Symposium on Quantum Interaction* (pp. 163-176). Cham: Springer International Publishing.
- Vas, R., Weber, C., & **Gkoumas, D.** (2018). Implementing connectivism by semantic technologies for self-directed learning. *International Journal of Manpower*, 39(8), 1032-1046.
- **Gkoumas, D.**, & Vas, R. (2017). Topic Models to Contextualize and Enhance Text-Based Discourses Using Ontologies. *ALLDATA 2017*, 87.
- **Gkoumas, D.**, Gausz, B., & Vas, R. (2016). An Analysis of Learning Behaviour and Patterns in a Technology-Enhanced Learning Environment. In Proceedings of the European Conference on Information Systems Education Research.