

Konstantinos Skianis

Assistant Professor @UOI, Founder @BLUAI-@PrimeHost

skianis.konstantinos@gmail.com

Personal website: y3nk0.github.io

kskianis@cse.uoi.gr

Google Scholar: scholar.google.com/citations?user=hG2ozuEAAAAJ

AREAS	Natural Language Processing, Deep Learning, Machine Learning, Data Science	
PROFESSIONAL EXPERIENCE	Assistant Professor , <i>University of Ioannina</i> Department of Computer Science & Engineering	March 2024 - present
	Co-founder, R&D , <i>PrimeHost</i> Building an AI Superhost for Short Term Rentals	October, 2023 - present
	Founder, R&D , <i>BLUAI</i> AI, NLP, ML solutions and consulting	June, 2020 - present
	Researcher , <i>NKUA</i> Department of Port Management and Shipping	January, 2022 - June 2023
	Adjunct Lecturer (Academic Scholar) , <i>AUEB</i> Data Mining and Science undergraduate course	March, 2022 - September 2022
	Senior Researcher , <i>CLMS</i> EU programs R&D	September, 2020 - March 2022
	Postdoctoral Researcher , <i>École Polytechnique</i> Research, supervision	March, 2019 - June 2020
	Research Engineer , <i>École Polytechnique</i> Data Mining, Machine Learning, Data Visualization	July, 2013 - September, 2014
EDUCATION	École Polytechnique , Palaiseau, France (DaSciM team)	
	Ph.D. Candidate, October 2015 - February 2019	
	<ul style="list-style-type: none">• Topic: “Novel Representations, Regularization and Distances for Text Classification”• Advisors: Prof. Michalis Vazirgiannis & Prof. Guillaume Wisniewski	
	École Normale Supérieure Paris-Saclay , Paris, France	
	M.Sc., Math, Computer Vision and Machine Learning (MVA) 2014-2015	
	Specialization: Graph & Text Mining	
	Athens University of Economics and Business , Athens, Greece	
	B.Sc., Computer Science, May 2013	
HONORS AND GRANTS	Specialization: Data Mining & Web Crawling	
	Google Education 2024	
	Granted access to Google Cloud and Gemini credits for research	
	OpenAI Researcher Access Program, 2024	
	Granted access to GPT-4 credits for research in LLM reasoning	

École Polytechnique Jeune Post-doc Fellowship, March-May 2019

Awarded a 3-month post-doc research grant

École Polytechnique Ph.D. Fellowship, 2015

Awarded the Ph.D. research grant for 2015-2018

PUBLICATIONS

1. [A Greek Government Decisions Dataset for Public-Sector Analysis and Insight](#)
G. Antoniou, G. Filandrianos, A. Vlachos, G. Stamou, L. Kollimenos, K. Skianis, M. Vazirgiannis
arxiv 2025
2. [On the Lipschitz Continuity of Set Aggregation Functions and Neural Networks for Sets](#)
G. Nikolentzos, K. Skianis
arxiv 2025
3. [KGRAG-Ex: Explainable Retrieval-Augmented Generation with Knowledge Graph-based Perturbations](#)
G. Balanos, E. Chasanis, K. Skianis, E. Pitoura
IJCKG 2025 (Conference)
4. [Severity Prediction in Mental Health: LLM-based Creation, Analysis, Evaluation of a Novel Multilingual Dataset](#)
K. Skianis, J. Pavlopoulos, AS Doğruöz
arxiv 2024
5. [Graph Reasoning with Large Language Models via Pseudo-code Prompting](#)
K. Skianis, G. Nikolentzos, M. Vazirgiannis
arxiv 2024
6. [Leveraging LLMs for Translating and Classifying Mental Health Data](#)
K. Skianis, AS Doğruöz, J. Pavlopoulos
MRL, EMNLP 2024 (Workshop)
7. [On the Trade-off between Over-smoothing and Over-squashing in Deep Graph Neural Networks](#)
J. Giraldo, K. Skianis, T. Bouwmans, F. Malliaros
CIKM 2023 (Conference)
8. [Predicting COVID-19 positivity and hospitalization with multi-scale graph neural networks](#)
K. Skianis, G. Nikolentzos, B. Gallix, R. Thiebaut, G. Exarchakis
Nature Scientific Reports 2023 (Journal)
9. [Digital Twin for Automated Industrial Optimization: Intelligent Machine Selection via Process Modelling](#)
K. Skianis, A. Giannopoulos, A. Kalafatelis, P. Trakadas
IAICT 2023 (Conference)
10. [SWIRL: Statistical downscaling for Wind Pattern Reconstruction using Machine Learning](#)
K. Skianis, A. Giannopoulos, S. Spantideas, M. Hatzaki, A. Karditsa, P. Trakadas
CEST 2023 (Conference)
11. [Towards Fine-Dining Recipe Generation with Generative Pre-trained Transformers](#)
K. Katserelis, K. Skianis
arxiv 2022
12. [Moderate COVID-19: Clinical Trajectories and Predictors of Progression and Outcomes](#)
A. G. Pappas, A. Panagopoulos, A. Rodopoulou, M. Alexandrou, A. Chaliasou, K. Skianis, E. Kranidioti, E. Chaini, I. Papanikolaou, I. Kalomenidis
Journal of Personalized Medicine 2022 (Journal)
13. [Evaluation of Machine Translation Methods applied to Medical Terminologies](#)
K. Skianis, F. Desgrippes, Y. Briand
LOUHI, EMNLP 2020 (Workshop)

14. [Boosting Tricks for Word Mover's Distance](#)
K. Skianis, F. D. Malliaros, N. Tziortziotis, M. Vazirgiannis
ICANN 2020 (Conference)
15. [Rep the Set: Neural Networks for Learning Set Representations](#)
K. Skianis, G. Nikolentzos, S. Limnios, M. Vazirgiannis
AISTATS 2020 (Conference)
16. [GraKel: Graph Kernels in Python](#)
G. Nikolentzos, I. Siglidis, S. Limnios, C. Giatsidis, K. Skianis, M. Vazirgiannis
JMLR 2020 (Journal)
17. [Evaluation of Greek Word Embeddings](#)
S. Outsios, C. Karatsalos, K. Skianis, M. Vazirgiannis
LREC 2020 (Conference)
18. [Scientometrics for Success and Influence in the Microsoft Academic Graph](#)
G. Panagopoulos, C. Xypolopoulos, K. Skianis, C. Giatsidis, J. Tang, M. Vazirgiannis
Complex Networks 2019 (Conference)
19. [Word Embeddings from Large-scale Greek Web Content](#)
S. Outsios, K. Skianis, P. Meladianos, C. Xypolopoulos, M. Vazirgiannis
arXiv 2018
20. [Orthogonal Matching Pursuit for Text Classification](#)
K. Skianis, N. Tziortziotis, M. Vazirgiannis
WNUT, EMNLP 2018, *Brussels, Belgium* (Workshop)
21. [Fusing Document, Collection and Label Graph-based Representations with Word Embeddings for Text Classification \(Best Paper Award\)](#)
K. Skianis, F. Malliaros, M. Vazirgiannis
TextGraphs, NAACL 2018, *New Orleans, USA* (Workshop)
22. [Kernel Graph Convolutional Neural Networks](#)
G. Nikolentzos, P. Meladianos, A. J.-P. Tixier, K. Skianis, M. Vazirgiannis
ICANN 2018, *Rhodes, Greece* (Conference)
23. [Data Management for the World Wealth & Income Database](#)
K. Skianis, M. Vazirgiannis, L. Chancel, T. Piketty et. al.
ParisBD 2017, *Paris, France* (Poster)
24. [SpreadViz: Analytics and Visualization of Spreading Processes in Social Networks](#)
K. Skianis, MEG. Rossi, F. D. Malliaros, M. Vazirgiannis
ICDM 2016, *Barcelona, Spain* (Demo)
25. [Regularizing Text Categorization with Clusters of Words](#)
K. Skianis, F. Rousseau, M. Vazirgiannis
EMNLP 2016, *Austin, USA* (Conference)
26. [GoWvis: a web application for Graph-of-Words-based text visualization and summarization](#)
A. J.-P. Tixier, K. Skianis, M. Vazirgiannis
ACL 2016, *Berlin, Germany* (Demo)
27. [Graph-Based Term Weighting for Text Categorization](#)
F. Malliaros, K. Skianis
Someris, ASONAM 2015, *Paris, France* (Workshop)

STARTUPS

PrimeHost (<https://primehost.ai>):

- Automate guest conversation with AI. Our solution utilizes state-of-the-art NLP methods for providing either fully automated responses to guests or draft responses to hosts or listing managers.
- Started October 2023
- Awarded €170.000 in Azure credits from Microsoft
- More than 3000 listings in the platform

BLUAI (<https://bluai.github.io>):

- Projects with Agence Numerique de Sante:
 - Machine Translation of Medical Terminologies,
 - Ontology Matching,
 - Medical Knowledge Extraction via Word Embeddings
- Elyas Conseil: identifying budget from project reports. The goal of this project was to try to extract the class or category of budget regarding a specific project report.

EUROPEAN PROJECTS

- **Pharos (2023–present):** Participation in the [Pharos](#) initiative, focusing on the design and development of a large-scale Greek large language model (LLM). Contributions include data curation and cleaning for Greek corpora, evaluation benchmark design, and experimentation with fine-tuning and instruction-tuning strategies to improve reasoning and domain adaptation in Greek.
- **ANS (2019–present):** Participation in a research project with the [Agence Numérique de la Santé \(ANS\)](#), [Paris, France](#), a French public organization, focusing on machine translation of medical texts and clinical terminologies. The project is funded by the French state (budget: €150,000) and conducted through the BLUAI company. Role: research engineer, programmer, and researcher developing novel machine translation methods.
- **ICOS (2023):** [Towards a Functional Continuum Operating System](#), European research project funded by the European Union under the HORIZON research and innovation programme (Grant Agreement No. 101070177). Collaborating researcher at the Department of Ports and Shipping Management, National and Kapodistrian University of Athens (NKUA), within the research group of Associate Professor P. Trakadas.
- **Change2Twin (2022):** [Bringing Digital Twins to Manufacturing SMEs](#), European project funded by the European Union's Horizon 2020 Research and Innovation Programme (Grant Agreement No. 951956). Collaborating researcher at the Department of Ports and Shipping Management, NKUA, within the research group of Associate Professor P. Trakadas.
- **AdaptPorts (2022):** [Strategic Action for the Adaptation of Ports to Climate Change](#), funded by the Green Fund under Priority Axis 3 "Research and Application – Physical Environment & Innovative Actions 2022". Research contribution within the group of Associate Professor P. Trakadas.
- **DigiCirc (2021):** [Digital Circular Economy](#), European project funded by the European Union's Horizon 2020 research and innovation programme (Grant Agreement No. 873468). Role: developer at CLMS.
- **Airbus (2014):** Industrial research project with Airbus on predicting aircraft *NO-GO* messages from operational logs. NO-GO messages render aircraft temporarily unavailable for flight. The study identified precursor log patterns that can serve as early indicators of future NO-GO events.

REVIEWS	<ul style="list-style-type: none">• 2026: WWW, ARR• 2025: Area Chair @ARR (ACL, EMNLP), NeurIPS, ICLR• 2023: ACL• 2021: NAACL• 2020: EMNLP• 2019: NAACL, LLD @ICLR• 2018: NIPS, WWW, EMNLP, ECML-PKDD• 2017: AAAI, LLD @NIPS, EMNLP• 2016: AAAI, WSDM, IC²S²								
TEACHING	<ul style="list-style-type: none">• 2024: Linear Algebra (undergraduate) <i>Full teaching - Department of Computer Science & Engineering, UOI</i>• 2022: Data Mining and Science (undergraduate) <i>Full teaching - Department of Informatics, AUEB</i>• 2019: Executive training for companies: Lectures & labs on text mining and deep learning <i>Full teaching - DSSP, EXED</i>• 2017: Learning for Text and Graph Data: Labs (master) <i>Master M2 @ Ecole Polytechnique</i>								
COMPETITIONS	6th place, National Bank of Greece Race Training greek word embedding from legal texts.		April 2019						
	2nd place, Fintech Crowdhackathon Detecting fraud e-transactions based on deep learning.		April 2016						
	2nd place, DREEM challenge (inclass Kaggle) DREEM introduces a way to increase the duration and quality of deep sleep.		January 2015						
	6th place, Data Mining Cup Berlin, Germany		July 2013						
TECHNICAL SKILLS	<table><tr><td>Coding</td><td>Python, Java, C, C++ SQL, Matlab, D3js, L^AT_EX</td></tr><tr><td>Systems</td><td>Kubernetes, Elasticsearch</td></tr><tr><td>Tools</td><td>Keras, Tensorflow, PyTorch, Spark, Hadoop</td></tr></table>	Coding	Python, Java, C, C++ SQL, Matlab, D3js, L ^A T _E X	Systems	Kubernetes, Elasticsearch	Tools	Keras, Tensorflow, PyTorch, Spark, Hadoop		
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ADDITIONAL INFORMATION	<table><tr><td>Languages</td><td>Greek - Native English - Fluent German - Good French - Good</td></tr></table>	Languages	Greek - Native English - Fluent German - Good French - Good						
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