

Konstantinos Skianis

Assistant Professor @UOI, Founder @BLUAI-@PrimeHost

y3nk0.github.io, bluai.gr, primehost.ai

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

skianis.konstantinos@gmail.com

kskianis@cse.uoi.gr

+30 6977456112

Skype: kostas.skianis

AREAS	Natural Language Processing, Deep Learning, Machine Learning, Data Science	
PROFESSIONAL EXPERIENCE	Assistant Professor of NLP , <i>University of Ioannina</i> Department of Computer Science & Engineering	March, 2024 - present
	Co-founder, R&D , <i>PrimeHost</i> Automate guest conversations with AI	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 Professor (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 Specialization: Data Mining & Web Crawling	
HONORS AND GRANTS	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. [Severity Prediction in Mental Health: LLM-based Creation, Analysis, Evaluation of a Novel Multilingual Dataset](#)
K. Skianis, J. Pavlopoulos, AS Doğruöz
arxiv 2024
2. [Graph Reasoning with Large Language Models via Pseudo-code Prompting](#)
K. Skianis, G. Nikolentzos, M. Vazirgiannis
arxiv 2024
3. [Leveraging LLMs for Translating and Classifying Mental Health Data](#)
K. Skianis, AS Doğruöz, J. Pavlopoulos
MRL, EMNLP 2024 (Workshop)
4. [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)
5. [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)
6. [Digital Twin for Automated Industrial Optimization: Intelligent Machine Selection via Process Modelling](#)
K. Skianis, A. Giannopoulos, A. Kalafatelis, P. Trakadas
IAICT 2023 (Conference)
7. [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)
8. [Towards Fine-Dining Recipe Generation with Generative Pre-trained Transformers](#)
K. Katsereilis, K. Skianis
arxiv 2022
9. [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)
10. [Evaluation of Machine Translation Methods applied to Medical Terminologies](#)
K. Skianis, F. Desgrippes, Y. Briand
LOUHI, EMNLP 2020 (Workshop)
11. [Boosting Tricks for Word Mover's Distance](#)
K. Skianis, F. D. Malliaros, N. Tziortziotis, M. Vazirgiannis
ICANN 2020 (Conference)
12. [Rep the Set: Neural Networks for Learning Set Representations](#)
K. Skianis, G. Nikolentzos, S. Limmios, M. Vazirgiannis
AISTATS 2020 (Conference)
13. [GraKel: Graph Kernels in Python](#)
G. Nikolentzos, I. Siglidis, S. Limmios, C. Giatsidis, K. Skianis, M. Vazirgiannis
JMLR 2020 (Journal)
14. [Evaluation of Greek Word Embeddings](#)
S. Outsios, C. Karatsalos, K. Skianis, M. Vazirgiannis
LREC 2020 (Conference)

15. [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)
16. [Word Embeddings from Large-scale Greek Web Content](#)
S. Outsios, K. Skianis, P. Meladianos, C. Xypolopoulos, M. Vazirgiannis
arXiv 2018
17. [Orthogonal Matching Pursuit for Text Classification](#)
K. Skianis, N. Tziortziotis, M. Vazirgiannis
WNUT, EMNLP 2018, Brussels, Belgium (Workshop)
18. [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)
19. [Kernel Graph Convolutional Neural Networks](#)
G. Nikolentzos, P. Meladianos, A. J.-P. Tixier, K. Skianis, M. Vazirgiannis
ICANN 2018, Rhodes, Greece (Conference)
20. [Data Management for the World Wealth & Income Database](#)
K. Skianis, M. Vazirgiannis, L. Chancel, T. Piketty et. al.
ParisBD 2017, Paris, France (Poster)
21. [SpreadViz: Analytics and Visualization of Spreading Processes in Social Networks](#)
K. Skianis, MEG. Rossi, F. D. Malliaros, M. Vazirgiannis
ICDM 2016, Barcelona, Spain (Demo)
22. [Regularizing Text Categorization with Clusters of Words](#)
K. Skianis, F. Rousseau, M. Vazirgiannis
EMNLP 2016, Austin, USA (Conference)
23. [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)
24. [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 500 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

- 2019 to date: participation in a project with [Agence Numerique Sante, Paris, France](#) (French public organization) in the field of machine translation of medical texts and terminologies (French state funding, budget €150.000 (project through the BLUAI company, research-engineer position, programmer and researcher for new machine translation methods)
- 2023, [ICOS: Towards a functional continuum operating system](#), European project, funded by the European Union. This project has received funding from the European Union's HORIZON research and innovation program under grant agreement No 101070177 (collaborating researcher at the Department of Ports and Shipping Management, NKUA, in the group of Associate Professor P. Trakadas)
- 2022, [Change2Twin: Bringing Digital Twins to Manufacturing SMEs](#), European project, funded by the European Union. This project has received funding from the European Union's Horizon 2020 Research and Innovation Program under Grant Agreement No. 951956 (collaborating researcher at the Port and Shipping Management department, NKUA, in the group of Associate Professor P. Trakadas)
- 2022, [AdaptPorts, Strategic Action for the Adaptation of Ports to Climate Change](#), funding from the Green Fund, Priority Axis 3 "RESEARCH AND APPLICATION" "PHYSICAL ENVIRONMENT & INNOVATIVE ACTIONS 2022" (in the group of Associate Professor P. Trakadas)
- 2021, [DigiCirc: project in the digital circular economy](#), European project, funded by the European Union. This project has received funding from the European Union's Horizon 2020 research and innovation program under grant agreement No 873468 (developer at CLMS company)
- 2014, Project with Airbus in predicting NO-GO messages (logs) in the aircrafts. NO-GO messages are of major importance for aircrafts as they make them unavailable for flight with their presence. Our study revealed a number of messages that can be used as "signals" for future NO-GO messages.

REVIEWS

- 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

- 2022: Data Mining and Science (undergraduate)
Full teaching - Department of Informatics, AUEB
- 2019: Executive training for companies: Lectures & labs on text mining and deep learning
Full teaching - DSSP, EXED
- 2017: Learning for Text and Graph Data: Labs (master)
Master M2 @ Ecole Polytechnique

COMPETITIONS	6th place, National Bank of Greece Race	April 2019
	Training greek word embedding from legal texts.	
	2nd place, Fintech Crowdhackathon	April 2016
	Detecting fraud e-transactions based on deep learning.	
	2nd place, DREEM challenge (inclass Kaggle)	January 2015
	DREEM introduces a way to increase the duration and quality of deep sleep.	
	6th place, Data Mining Cup	July 2013
	Berlin, Germany	

TECHNICAL SKILLS	Coding	Python, Java, C, C++ SQL, Matlab, D3js, L ^A T _E X
	Systems	Kubernetes, Elasticsearch
	Tools	Keras, Tensorflow, PyTorch, Spark, Hadoop

ADDITIONAL INFORMATION	Languages	Greek - Native
		English - Fluent
		German - Good
		French - Good