

Konstantinos Skianis

Assistant Professor CSE@UOI, Founder [BLUAI-PrimeHost](#)

Website: y3nk0.github.io

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

skianis.konstantinos@gmail.com

kskianis@cse.uoi.gr

AREAS

Natural Language Processing, Deep Learning, Machine Learning, Data Science

PROFESSIONAL EXPERIENCE

Assistant Professor, University of Ioannina
Department of Computer Science & Engineering

March 2025 - present

Co-founder, R&D, PrimeHost
Building an AI Superhost for Short Term Rentals

October, 2023 - present

Founder, R&D, BLUAI
NLP, ML, AI solutions and consulting

June, 2020 - present

Researcher, NKUA
Department of Port Management and Shipping

January, 2022 - June 2023

Adjunct Lecturer (Academic Scholar), AUEB
Data Mining and Science undergraduate course

March, 2022 - September 2022

Senior Researcher, CLMS
EU programs R&D

September, 2020 - March 2022

Postdoctoral Researcher, École Polytechnique
Research, supervision

March, 2019 - June 2020

Research Engineer, École Polytechnique
Data Mining, Machine Learning, Data Visualization

July, 2013 - September, 2014

EDUCATION

École Polytechnique, Palaiseau, France ([DaSciM team](#))

Ph.D. Candidate, October 2015 - February 2019

- 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

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 a 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 (Worskhop)
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. Desgripes, 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. Vazirgianis
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. Vazirgianis
arXiv 2018
20. [Orthogonal Matching Pursuit for Text Classification](#)
K. Skianis, N. Tziortziotis, M. Vazirgianis
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 (2025–present):** Participation in the [Pharos](#) initiative (Language & Culture), 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 fine-tuning and instruction-tuning strategies to improve domain adaptation in Greek. Collaborating researcher with the National Technical University of Athens (NTUA).
- **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 and development for 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.

SUPERVISION

- Ph.D. (2025-):
 - Markos-Tilemachos Mpazakas: Industrial Ph.D. with Natech
- Master theses (2025):
 - Giorgos Antoniou (NTUA): Interpretability of constants in LLMs
 - Marios Ellinidis (UOI): Explanation Consistency as a Signal for Faithfulness in LLMs
 - Panagiotis Kannas (UOI): Structure-Aware Tabular Question Answering with LLMs
 - Ioannis Mpouzas (UOI): Memory as Graph-Constrained Belief Vectors via Projection-Based Reasoning Under Structural Constraints
 - Ioanna Sakellariou (UOI): Investigating the Inverse Task of Medical Redefinition in LLMs
 - Christos Tzouvaras (UOI): Clarity Semeval

REVIEWS

- 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

- 2024: Linear Algebra (undergraduate)
Full teaching - Department of Computer Science & Engineering, UOI
- 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
Increasing the duration and quality of deep sleep	
6th place, Data Mining Cup	July 2013
Berlin, Germany	