# Konstantinos Skianis

Founder @BLUAI, Researcher @NKUA

y3nk0.github.io & bluai.gr

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

Professional Experience Founder, R&D, BLUAI

June, 2020 - present

AI, NLP, ML solutions and consulting

Researcher, NKUA

January, 2022 - present

Department of Port Management and Shipping

Adjunct Professor (Academic Scholar), AUEB

March, 2022 - September 2022

Data Mining and Science undergraduate course

Senior Researcher, CLMS

September, 2020 - March 2022

EU programs R&D

Postdoctoral Researcher, École Polytechnique

March, 2019 - June 2020

Research, supervision

Research Engineer, École Polytechnique & Airbus 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 Superieure 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 Awards 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. Digital Twin for Automated Industrial Optimization: Intelligent Machine Selection via Process Modelling

K. Skianis, A. Giannopoulos, A. Kalafatelis, P. Trakadas

IAICT 2023 (Conference)

 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) 3. 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 2022 (Journal)

4. Towards Fine-Dining Recipe Generation with Generative Pre-trained Transformers K. Katserelis, K. Skianis arxiv 2022 (Journal)

5. 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)

6. Evaluation of Machine Translation Methods applied to Medical Terminologies K. Skianis, F. Desgrippes, Y. Briand

LOUHI, EMNLP 2020 (Workshop)

7. Boosting Tricks for Word Mover's Distance

K. Skianis, F.D. Malliaros, N. Tziortziotis, M. Vazirgiannis ICANN 2020 (Conference)

8. Rep the Set: Neural Networks for Learning Set Representations

K. Skianis, G. Nikolentzos, S.Limnios, M. Vazirgiannis AISTATS 2020 (Conference)

9. GraKel: Graph Kernels in Python

G. Nikolentzos, I. Siglidis, S. Limnios, C. Giatsidis, K. Skianis, M. Vazirgianis **JMLR 2020** (Journal)

10. Evaluation of Greek Word Embeddings

S.Outsios, C. Karatsalos, K. Skianis, M. Vazirgiannis LREC 2020 (Conference)

11. 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)

12. Word Embeddings from Large-scale Greek Web Content

S.Outsios, K. Skianis, P. Meladianos, C. Xypolopoulos, M. Vazirgiannis  ${\bf arXiv}~{\bf 2018}$ 

13. Orthogonal Matching Pursuit for Text Classification

K. Skianis, N. Tziortziotis, M. Vazirgianis

WNUT, EMNLP 2018, Brussels, Belgium (Workshop)

14. 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)

15. Kernel Graph Convolutional Neural Networks

G. Nikolentzos, P. Meladianos, A. J.-P. Tixier, K. Skianis, M. Vazirgiannis **ICANN 2018**, *Rhodes*, *Greece* (Conference)

16. Data Management for the World Wealth & Income Database

K. Skianis, M. Vazirgiannis, L. Chancel, T. Piketty et. al.

ParisBD 2017, Paris, France (Poster)

17. SpreadViz: Analytics and Visualization of Spreading Processes in Social Networks

K. Skianis, MEG. Rossi, F. D. Malliaros, M. Vazirgiannis

ICDM 2016, Barcelona, Spain (Demo)

18. Regularizing Text Categorization with Clusters of Words K. Skianis, F. Rousseau, M. Vazirgiannis EMNLP 2016, Austin, USA (Conference)

 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)

20. Graph-Based Term Weighting for Text Categorization

F. Malliaros, K. Skianis

Someris, ASONAM 2015, Paris, France (Workshop)

#### 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,  $IC^2S^2$

#### Teaching

- $\bullet$  2022: Teaching the Data Mining and Science undergraduate course 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 with Python Labs Licence, 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, LATEX

Systems | Kubernetes, Elasticsearch

Tools Keras, Tensorflow, PyTorch, Spark, Hadoop

Additional Information Languages | Greek - Native

English - Fluent

German - Good

French - Good