EXTENSIVE CURRICULUM VITAE

IOANNIS PAVLOPOULOS

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IN T E R N A T I ON S

Full Name: Ioannis Pavlopoulos

Date of birth: 6 August 1983

Email address: [annis@aueb.gr](mailto:annis@aueb.gr) [ioannis@dsv.su.se](mailto:ioannis@dsv.su.se)

Website: <https://ipavlopoulos.github.io>

P R O L E R A T I ON O F THE P R O C T I ON O F THE

• Co1, Co2: Research project contracts.

• Co 3-Co 8, Co 10: Teaching contracts.

• Co9: Postdoctoral research contract.

• Ce4: Certificate of postdoctoral research.

• Ce1, Ce2: Certificate/Certificate of Service Fulfillment.

• Ce3: Birth certificate.

• D1: Solemn declaration of fulfilment of military obligations.   
• A 1, A2: Thomaidio prize.

• Sc1, SC 2, SC3: Scholarships.

• S1-S38: Conference papers.

• D1-P10: Articles in journals.

• M1, M2: Monographs.

• Sn1: Recognition of postgraduate degree by DOATAP.

RESEARCHINTERESTS

My scientific work focuses on Natural Language Processing and focuses on:

• Machine and deep learning for text and images

• Information mining (sentiment, entity names) from large collections of documents   
• Categorization such as for diagnosis or infiltration of unwanted content

• Natural language text production .

SPoHYDES

2010 – 2014: Department of Informatics, School of Information Sciences and Technology, Athens University of Economics and Business, Greece. PhD in Natural Language Processing. Thesis title: Aspect Based Sentiment Analysis (link).

2008 – 2009: Department of Computer Science, University of Edinburgh, UK. Master in Artificial Intelligence. Thesis Title: Automatic Text Illustration (Sn1).

2001 – 2007: School of Applied Mathematics and Physical Applications, National Technical University of Athens, Greece. Thesis title : Method development of Genetic Programming Neural Networks for the investigation of the genetic and environmental underlayy of diseases.

PROFESSIONALEXPERIENCE

• Ca’Foscari University of Venice, Department of Humanities

o Visiting scholar in Natural Language Processing (1/12/2021 – 31/8/2022).

Co-organization of the 1st international academic competition HTREC, member of the editorial team of the International Journal for Public and Digital Humanities.

• Stockholm University, Department of Computer and System Sciences

o Lecturer (on a fixed-term contract) in Natural Language Processing

(Co10: 1/6/2020 – 30/11/2021).

o Postdoctoral researcher in Data Science (Co9: 1/10/2019 –

31/5/2020).

• Google Jigsaw

o Research Associate (1/10/2018 -- today).

• Cognitiv+

o Data Scientist (1/9/2018 – 1/4/2019)

§ Identification of context and obliquity in legal texts. § Manage a group of taggers.

• Liquid Media / Straintek

o Principal Investigator (1/7/ 2016 – 1/7/2018)

§ Manage a team of developers and engineers for development and

installation of spam detection software and APIs .

§ Unwanted language detection research (Greek, English, German).

§ Deep learning applications.

• Postdoctoral Researcher (1/7/2015 – 1/7/2016)

§ Machine Learning to detect unwanted language.   
§ Principal author of proposals for funding.

• Hellenic Army Support Computer Center (Co 11, Co12)

o Software development (1/9/2014 – 1/6/2015).

• BioASQ (1/9/2012 – 1/9/2014)

o Study of evaluation measures for questions and answer systems in bioinformatics.

o Modeling of word embeddings from corpora biology

and bioinformatics (available).

• IMC Technologies

o Research & Development Engineer (1/9/2010 – 1/9/2012)

§ Design and implementation of text search solutions and

on the web (crawling), and opinion mining within e-Government.

• DBNet, Athens University of Economics and Business.

o Research Associate (1/9/ 2009 – 1/9/2010)

§ Application of Markov Models to time series data from

WebTime-Series Data.

• Demokritos (1/7/2007 – 1/8/2008)

o Scientific collaborator.

§ Design and development of Neural Network systems. § Co-authorship of European research proposals.

• Oracle Hellas

o Software development and practical work (1/10/2005 – 1/12/2005)

TEACHINGEXPERIENCE

Teaching:

• Lecturer in Language Technology in the Postgraduate Program of Digital Methods for

the Humanities of the Athens University of Economics and Business (Co 4, Co5).

• Lecturer in Practical Data Science in the Master of Science Program

Athens University of Economics and Business Data (Co 6, Co 7, Co 8).

• Lecturer in Language Technology at Stockholm University, Sweden, in

PhD candidates (Co9).

• Visiting lecturer in Data Science at Stockholm University,

Sweden (Co10).   
Co-teaching:

• Lecturer in Language Technology in the Postgraduate Program of Digital Methods for

the Humanities of the Athens University of Economics and Business (Co3).   
Supervision of post-graduate work:

• Korres Katerina. Using Predictive Text for Grammatical Error Correction in Second Language

Learning (2020). Thesis for the MSc in Digital Methods for the Humanities, AUEB

• Fasoi Maria. Linguistic modeling for authorship in Homeric texts (2020). Thesis for the MSc in Digital Methods for Humanities

Sciences, AUEB

• Chatzipanagiotou Marita. Geographical attribution of Greek inscriptions using machine

learning and deep learning methods (2020). Thesis for the MSc in Digital Methods for the Humanities, AUEB

• Kuyia Basilica.

• StroumPouli Eleftheria. Error Detection in English and Greek texts written by foreign

learners (2020). Thesis for the MSc in Digital Methods for the Humanities, AUEB

• Glynatsi Katerina. Toxicity detection: reading between the lines (2020). Thesis on

M.Sc. in Digital Methods for the Humanities, AUEB

• Antoniou Marili. Identifying toxic speech in online discussions (2020). Thesis on

M.Sc. in Digital Methods for the Humanities, AUEB

• Hasapis Alexandros. Text classification for the detection of food recalls (2020). Thesis on

the MSc in Data Science, AUEB

• ThalaSisinou Lislevant Marina. Emotion Classification on Greek Texts (2020). Thesis on

the MSc in Data Science, AUEB   
Co-supervision of postgraduate theses:

• Kougia Vasiliki. Medical Image Labeling and Report Generation (2019). Thesis on

M.Sc. in Computer Science, AUEB

• Koutsikakis Ioannis. Toxicity Detection in User Generated Content (2018). Thesis on

M.Sc. in Computer Science, AUEB

CONCESSIONSANDDISCRIMINATION

• Securing a 'Google Research Award' for my postdoctoral research (Co1).

• 'PriceWaterhouseCoopers' scholarship for postgraduate studies (SC1).

• ' Thomaidio Prize' for the best diploma thesis of the year at NTUA (A 1, A2).   
• 'Ganiotis-Papageorgis' scholarship for undergraduate studies (Sc3).

• 'Aglaia Koufodimou' scholarship for undergraduate studies (Sc2).

PUBLICATIONS

Articles in proceedings of scientific conferences with full review:

* + - A1. Vrettaros, I., Pavlopoulos, I., Vouros, G., & Drigas, A. S. "The Development of a Self-Assessment System for the Learners' Answers with the Use of GPNN." *World Summit on Knowledge Society (WSKS)*, Athens, Greece, (2008), pp. 332-340.
    - A2. Voudigari, E., Pavlopoulos, I., & Vazirgiannis, M. "A Framework for Web Page Rank Prediction." *Engineering Applications of Neural Networks / Artificial Intelligence Applications and Innovations*, Corfu, Greece, (2011), pp. 240-249.
    - A3. Alexopoulos, P., Pavlopoulos, I., Wallace, M., & Kafetzis, K. "Exploiting Ontological Relations for Automatic Semantic Tag Recommendation." International Conference on Semantic Systems, Graz, Austria, (2011), pp. 105-110.
    - A4. Alexopoulos, P., Pavlopoulos, I., & Mylonas, P. "Learning Vague Knowledge from Socially Generated Content in an Enterprise Framework." IFIP Advances in Information and Communication Technology, Artificial Intelligence Applications and Innovations, Halkidiki, Greece, (2012), pp. 510-519.
    - A5. Anadiotis, G., Kafentzis, K., Pavlopoulos, I., & Westerski, A. "Building Consensus via a Semantic Web Collaborative Space." WWW, Lyon, France, (2012), pp. 1097-1106.
    - A6. Pavlopoulos, I., & Androutsopoulos, I. "Multi-granular Aspect Aggregation in Aspect-based Sentiment Analysis." EACL, Gothenburg, Sweden, (2014), pp. 78-87.
    - A7. Karabatsis, R. M., Pavlopoulos, I., & Malakasiotis, P. "AUEB: Two-stage Sentiment Analysis of Social Network Messages." SemEval in ACL, Dublin, Ireland, (2014), pp. 114-118.
    - A8. Pavlopoulos, I., & Androutsopoulos, I. "Aspect Term Extraction for Sentiment Analysis: New Datasets, New Evaluation Measures, and an Improved Unsupervised Method." Workshop on Language Analysis for Social Media in EACL, Gothenburg, Sweden, (2014), pp. 44-52.
    - A9. Pontiki, M., Galanis, D., Pavlopoulos, I., Papageorgiou, C., Androutsopoulos, I., & Manandhar, S. "Semeval-2014 Task 4: Aspect-based Sentiment Analysis." SemEval in COLING, Dublin, Ireland, (2014), pp. 27-35.
    - A10. Xenos, D., Theodorakakos, P., Pavlopoulos, I., Malakasiotis, P., & Androutsopoulos, I. "AUEB-ABSA at SemEval-2016 Task 5: Supervised Machine Learning for Aspect-based Sentiment Analysis." SemEval in NAACL:HLT, San Diego, California, USA, (2016), pp. 312-317.
    - A11. Giorgis, S., Rousas, A., Pavlopoulos, I., Malakasiotis, P., & Androutsopoulos, I. "AUEB.Twitter.Sentiment at SemEval-2016 Task 4: A Weighted Ensemble of SVMs for Twitter Sentiment Analysis." SemEval in NAACL:HLT, San Diego, California, USA, (2016), pp. 96-99.
    - A12. Pavlopoulos, I., Malakasiotis, P., & Androutsopoulos, I. "Deeper Attention to Abusive User Comment Moderation." EMNLP, Copenhagen, Denmark, (2017), pp. 1125-1135.
    - A13. Pavlopoulos, I., Malakasiotis, P., & Androutsosopoulos, I. "Deep Learning for User Comment Moderation." Abusive Language Workshop in ACL, Vancouver, BC, Canada, (2017), pp. 25-35.
    - A14. Pavlopoulos, I., Malakasiotis, P., Bakagianni, G., & Androutsopoulos, I. "Improved Abusive Comment Moderation with User Embeddings." Natural Language Processing Meets Journalism Workshop in EMNLP, Copenhagen, Denmark, (2017), pp. 51-55.
    - A15. Kougia, V., Pavlopoulos, I., & Androutsopoulos, I. "A Survey of Biomedical Image Captioning." Shortcomings in Vision and Language NAACL Workshop, Minneapolis, MN, USA, (2019), pp. 26-36.
    - A16. Kougia, V., Pavlopoulos, I., & Androutsopoulos, I. "AUEB NLP Group at ImageCLEFmed Caption 2019." International Conference and Labs of the Evaluation Forum for European Languages, (2019).
    - A17. Kougia, V., Pavlopoulos, I., & Androutsopoulos, I. "Medical Image Tagging with Neural Retrieval and Deep Learning." LNCS (Online), (2020), pp. 154-166.
    - A18. Pavlopoulos, I., & Papapetrou, P. "Clinical Predictive Keyboard using Statistical and Neural Language Modeling." IEEE Computer Based Medical Systems (Online), (2020), pp. 293-296.
    - A19. Pavlopoulos, I., Sorensen, J., Dixon, L., Thain, N., & Androutsopoulos, I. "Toxicity Detection: Does Context Really Matter?" ACL (Online), (2020), pp. 4296-4305.
    - A20. Karatzas, V., Kougia, V., Pavlopoulos, I., & Androutsopoulos, I. "AUEB NLP Group at ImageCLEFmed Caption 2020." International Conference and Labs of the Evaluation Forum for European Languages (Online), (2020).
    - A21. Korre, A., & Pavlopoulos, I. "ERRANT: Assessing and Improving Grammatical Error Type Classification." Workshop on Computational Linguistics for Cultural Heritage, Social Sciences, Humanities and Literature (Online), (2020), pp. 85-89.
    - A22. Laughier, L., Pavlopoulos, I., Sorensen, J., & Dixon, L. "Civil Rephrases Of Toxic Texts With Self-Supervised Transformers." EACL (Online), (2021), pp. 1442-1461.
    - A23. Pavlopoulos, I., Laughier, L., Sorensen, J., & Androutsopoulos, I. "SemEval-2021 Task 5: Toxic Spans Detection." SemEval in ACL-IJCNLP (Online), (2021), pp. 59-69.
    - A24. Pavlopoulos, I., & Papapetrou, P. "Customized Neural Predictive Medical Text: A Use-Case on Caregivers." International Conference on Artificial Intelligence in Medicine (Online), (2021), pp. 438-443.
    - A25. Xenos, A., Pavlopoulos, I. (corresponding author), & Androutsopoulos, I. "Context Sensitivity Estimation in Toxicity Detection." Workshop on Online Abuse and Harms in ACL (Online), (2021), pp. 140-145.
    - A26. Korre, K., Chatzipanagiotou, M., & Pavlopoulos, I. "ELERRANT: Automatic Grammatical Error Type Classification for Greek." RANLP (Online), (2021), pp. 713-722.
    - A27. Kougia, V., & Pavlopoulos, I. "Multimodal or Text? Retrieval or BERT? Benchmarking Classifiers for the Shared Task on Hateful Memes." Workshop on Online Abuse and Harms (WOAH 2021) (Online), (2021), pp. 220-225.
    - A28. Miliou, I., Pavlopoulos, I., & Papapetrou, P. "Sentiment Nowcasting During the COVID-19 Pandemic." International Conference on Discovery Science (Online), (2021), pp. 218-228.
    - A29. Ljungman, J., Lislevand, V., Pavlopoulos, I., FaraZouli, A., Lee, Z., Papapetrou, P., & Fors, U. "Automated Grading of Exam Responses: An Extensive Classification Benchmark." International Conference on Discovery Science (Online), (2021), pp. 3-18..
    - A30. Fasoi, M., Pavlopoulos, I., & Konstantinidou, M. "Computational Authorship Analysis of Homeric Language." Digital Humanities Workshop (Online), (2021), pp. 78-88, <https://dl.acm.org/doi/10.1145/3526242.3526256>.
    - A31. Chatzipanagiotou, M., Ewa Machotka, & Pavlopoulos, I. "Automated Recognition of Geographical Named Entities in Titles of Ukiyo-e Prints." Digital Humanities Workshop (Online), (2021), pp. 70-77, <https://doi.org/10.1145/3526242.3526254>.
    - A32. Pavlopoulos, I., Laugier, L., Xenos, A., Sorensen, J., & Androutsopoulos, I. "From the Detection of Toxic Spans in Online Discussions to the Analysis of Toxic-to-Civil Transfer." Association for Computational Linguistics (Online), (2022), pp. 3721-3734.
    - A33. Pavlopoulos, I., Machotka, E., & Liangou, K. "A Study of Distant Viewing of Ukiyo-e Prints." Language Resources and Evaluation Conference, Massalia, France, (2022), pp. 5879-5888.
    - A34. Korres, K., & Pavlospoulos, I. "Enriching Grammatical Error Correction Resources for Modern Greek." Language Resources and Evaluation Conference, Massalia, France, (2022), pp. 4984-4991.
    - A35. Platanou, P., Pavlopoulos, I., & Papaioannou, G. "Handwritten Paleographic Greek Text Recognition: A Century-Based Approach." Language Resources and Evaluation Conference, Massalia, France, (2022), pp. 6585-6589.
    - A36. Pavlopoulos, I., Henos, A., & Picca, D. "Sentiment Analysis of Homeric Text: The 1st Book of Iliad." Language Resources and Evaluation Conference, Massalia, France, (2022), pp. 7071-7077.
    - A37. Zonios, Ch., Pavlopoulos, I., & Lucas, A. "Transformer-Based Music Language Modelling and Transcription." Proceedings of the 12th Hellenic Conference on Artificial Intelligence, Corfu, Greece, (2022), pp. 1-8.
    - A38. Dritsa, K., Thomas, A., Pavlopoulos, I., & Louridas, P. "A Greek Parliament Proceedings Dataset for Computational Linguistics and Political Analysis." NIPS (Will Appear).

Publications in journals:

T1. **Vrettaros, G., Pavlopoulos, I., Dringas, A. S., & Chrysagis, K.** "GPNN Techniques in Learning Assessment Systems." *The International Journal of Technology Enhanced Learning*, vol. 3, no. 4, (2011) . Inderscience Publishers, pp. 415-429.

T2. **Alexopoulos, P., Pavlopoulos, I., & Mylonas, P.** "A Semantic Framework for Harvesting Vague Enterprise Knowledge from Microposts." *International Journal on Artificial Intelligence Tools*, vol. 23, no. 2, (2014).

T3. **Tsatsaronis, G., Balikas, G., Malakasiotis, P., Partalas, I., Zschunke, M., Alvers, M., Weissenborn, D., Barley, A., Petridis, S., Polychronoopoulos, D., Almyrantis, G., Pavlopoulos, I., Baskiotis, N., Gallinari, P., Artieres, T., Ngomo, A.-C., Heino, N., Gaussier, E., Barrio-Alvers, L., Schroeder, M., Androutsos, I., & Paliouras, G.** "An overview of the bioasq large-scale biomedical semantic indexing and question answering competition." *BMC Bioinformatics*, vol. 16, no. 1, (2015).

T4. **Kougia, V., Pavlopoulos, I. (corresponding author), PapapEtrou, P.** "RTEx: A novel framework for Ranking, Tagging, and Explanatory diagnostic captioning of radiography exams." *Journal of the American Medical Informatics Association*, vol. 28, no. 8, August (2021), pp. 1651-1659. <https://doi.org/10.1093/jamia/ocab046>

T5. **Olczak, J., Pavlos, I., Prijs, J., Ijpma, F. F. A., Doornberg, J. N., Lundstrom, C., Hedlund, J., and Gordon, M.** "Presenting artificial intelligence, deep learning, and machine learning studies to clinicians and healthcare stakeholders: an introductory reference with a guideline and a Clinical AI Research (CAIR) checklist proposal." *Acta Orthopaedica*, (2021).

T6. **Pavlopoulos, I., Kougia, V., Androutsopoulos, I., Papamichael, D.** "Diagnostic Captioning: A survey." *Knowledge and Information Systems*, 16 Jun. (2022), pp. 1-32. <https://doi.org/10.1007/s10115-022-01684-7>

T7. **AelAel, I., Sommerschield, T., Shillingford, B., Bordbar, M., Pavloopoulos, I., HatziPanagiotou, M., Androutsos, I., Prag, J., de Freitas, N.** "Restoring and attributing ancient texts using deep neural networks." *Nature*, vol. 603, (2022), pp. 280-283. <https://doi.org/10.1038/s41586-022-04448-z>

T8. **Pavlopoulos, I., Konstantinidou, M.** "Computational Authorship Analysis of the Homeric Poems." *International Journal of Digital Humanities*, (2022), pp. 1-20. <https://doi.org/10.1007/s42803-022-00046-7>

T9. **Xenos, A., Pavlopoulos, I., Androutsopoulos, I., Dixon, L., Sorensen, J., Laugier, L.** "Toxicity detection sensitive to conversational context." *First Monday*, (2022), <https://doi.org/10.5210/fm.v27i5.12285>.

T10. **Pavlopoulos, I., Lucas, A.** "Distance from Unimodality for the Assessment of Opinion Polarization."

*Cognitive Computation*, (2023), <https://doi.org/10.1007/s12559-022-10088-2>.

Initials:

M1. Pavlopoulos I. (2009). Implementation and Comparison of models addressing Automatic Text

Illustration, MSc thesis, University of Edinburgh, Department of Computer Science, UK. Supervisor: Prof. Mirela Lapata.

M2. Pavlopoulos I. (2014). Aspect Based Sentiment Analysis. PhD thesis, Department

Department of Informatics, Athens University of Economics and Business, Supervisor: Prof. Ion Androutsopoulos.

PARTICIPATIONIN RESEARCH PROJECTS

• EFRA: Research project (EU Horizon) for the automatic detection of product recall from

web texts and other data (2022-2025).

• NLP for digital Art History: Research project on Natural Language Processing in

History of Art (2021-2022).

• Autograde: Research project for automatic scoring/evaluation of electronics

exams (2021).

• Research project for the European Union (European Commission) for development

cost model for moderating user comments on online platforms (2020). Principal investigator (Co2).

• ConvAI - Context-aware abusive language detection in online conversations. Unconditional research support project funded by Google (Google Research

Award, 2019). Principal investigator (Co1).

• ML2P Filter - Machine learning to filter profanity. Google Digital News Initiative (DNI) project.

Principal investigator (2016-2018).

• BioASQ, European project FP7 ICT. Research associate (2012-2014).

OTHER P R O V I C A T I ON O F THE P R O C T I ON O F THE

Reviewer of leading international conferences such as: NIPS (from 2022), ACL, EMNLP, COLING (from 2022), NAACL-HLT, and journals such as: Natural Language Engineering, Data Mining and Knowledge Discovery. Member of the Abusive planning committee Language Workshop. Member of the editorial board of the International Journal for Public and Digital Humanities.