

CHRIS SAMARINAS

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SUMMARY

Machine Learning researcher with focus on applications in Natural Language Processing (Information Retrieval, Information Extraction, Question Answering, Knowledge Graphs, Recommendation Systems). Solved challenging problems during my work at 3 AI start-ups and 3 universities. PhD student in Information Retrieval at UMass Amherst.

EDUCATION

University of Massachusetts Amherst, Amherst, USA September 2021 – 2026 (expected)
M.Sc./PhD in Computer Science

- Research in Information Retrieval / Extraction at the [Center for Intelligent Information Retrieval](#) (CIIR).

Imperial College London, London, United Kingdom October 2017
Master of Science (M.Sc.) in Advanced Computing

- Attended courses towards an M.Sc. degree with main focus on Machine Learning.
- Thesis: *Personalized news recommendations using neural networks*

Aristotle University of Thessaloniki, Thessaloniki, Greece October 2013 – Jun 2017
Bachelor of Science (B.Sc.) in Computer Science

- GPA: **9.67/10.00**, ranked **1/120**, highest GPA since **1992** out of 2,500+ CS graduates, top **0.04%**
- Ranked **1/120** in national university entrance exam in my department and top **0.2%** nationwide.
- Thesis: *Mining answers from the web using information retrieval techniques and machine learning*

WORK EXPERIENCE

University of Massachusetts Amherst, Amherst, USA September 2021 – Present
Research Assistant

- Research Assistant at the [Center for Intelligent Information Retrieval](#), supervised by [Hamed Zamani](#). Research in *task-oriented dialog systems* and *conversational search* for the [Alexa Prize Taskbot Challenge](#), funded by Amazon.

Ro5, London, United Kingdom (remote) February 2021 – August 2021
Machine Learning Consultant (Knowledge Graph)

- [Ro5](#) is a biotechnology company that accelerates drug discovery, development, repurposing, and clinical trials.
- Responsible for the automated construction of a *biomedical knowledge graph* from research papers.
- Worked on *biomedical entity extraction*, *supervised entity resolution* and *relation classification*.

National University of Singapore, Singapore February 2020 – April 2021
Research Assistant

- Research on *latent retrieval for large-scale fact-checking and question answering* with prof. Wynne Hsu, president of [IDS](#) and prof. Mong Li Lee, president of [CTIC](#). (IEEE ICTAI 2020)
- Developed a framework for large-scale semantic search that returns text snippets related to questions or statements and deployed it in a real-world semantic search engine for COVID-19, launched by the president of NUS.
- Research on *multi-stage evidence retrieval for large-scale fact-checking*. (NAACL 2021) and on *explainable fake news detection based on content and social context*.

Plural AI, London, United Kingdom
Research Engineer

October 2018 – January 2020

- **Plural AI** is a fintech start-up that builds a *knowledge engine* for the finance industry. The company focuses on extracting content from corporate websites and financial statements to enrich a financial *knowledge graph*, and support question answering on complex financial queries.
- Developed a novel framework for *concept extraction* and *saliency scoring* from corporate websites. Owned the whole machine learning pipeline, from the *annotation tool development* and website crawling, to the productionization and deployment.
- Developed a smart tool for efficient curation of an industrial *category graph*.
- Developed a scalable semantic search service of companies using a novel *topic modeling* technique.

Donaco LTD, London, United Kingdom
Research Engineer

June 2018 – January 2019

- **Donaco** is an online advertising start-up that tries to revolutionize online donations.
- Designed a system for contextual recommendation of charity campaigns in news articles.

Freelance Software Engineer (early stuff)

2009 – November 2018

- My first YouTube utility app got over **1M** downloads and was **acquired** by a small company in Poland.
- Developed a metasearch engine for a client in Germany.
- Developed a location-based web search interface for a client in Canada.
- Developed and sold a script that bypassed Google's Custom Search API limitations and offered an interface for 'instant search', which among others was also used by a **company** in Turkey that got **\$2.5M** government funding.
- I was a short-term contractor for the development of the new version of the *historical HotBot* metasearch engine.

PUBLICATIONS

DEFAN: Explainable Fake News Detection Based on Content and Social Context (in progress)

Improving Evidence Retrieval for Automated Explainable Fact-Checking

Chris Samarin, Wynne Hsu, Mong Li Lee, system demonstration at *NAACL 2021*

Latent Retrieval for Large-Scale Fact-Checking and Question Answering with NLI Training

Chris Samarin, Wynne Hsu, Mong Li Lee, long paper at *IEEE ICTAI 2020*, **25%** acceptance rate

[[code](#)] [[demo 1](#), [demo 2](#)] [[news](#)] [[blog post](#)]

WAMBy: An Information Retrieval Approach to Web-Based Question Answering

Chris Samarin, Grigorios Tsoumakas, long paper at *SETN 2018*, **33%** acceptance rate

SKILLS

Programming languages	Python, Java, C, C++, Prolog
Web development	JavaScript, HTML5, PHP, MySQL, MongoDB
Machine Learning	Tensorflow, PyTorch
Others	Kubernetes, neo4j, GCP, Latex, Android development

AWARDS

Bioengineering Hackathon, 1st place, *EMB IEEE Student Chapter AUTH, StudentGuru*

2018

1st place for developing DropSense in 48 hours, a platform that monitors and connects elderly with their relatives and paid carers using Wear OS smartwatches.

Hackathon Thessaloniki, Honor, *Municipality of Thessaloniki*

2014

awarded for developing CityReport in 24 hours, an online web application for instant issues reporting.

Great Moment for Education Scholarship, Award, Eurobank Ergasias scholarship for achieving the highest grade at school at the national university admission examination.	2013
National Mathematical Olympiad, First Prize, Hellenic Mathematical Society awarded for competing in the final stage “Archimedes”, top 50 out of over 20,000 participants.	2009

GRANTS

Bodossaki Foundation PhD scholarship, Bodossaki Foundation \$60,000 scholarship for my 5-year PhD studies in Information Retrieval.	2021
Tensorflow Research Cloud Program, Google Granted free access to TPU pods for 6 months for our project on large-scale latent retrieval.	2020
Innovate UK Smart Grant, UK Research and Innovation, 1% acceptance rate £400,000 for our work at Plural AI, building a knowledge engine for the finance industry.	2019
Horizon 2020 Grant, EU Funding for Research and Innovation, 16% acceptance rate £50,000 for our research at Plural AI on entity extraction and semantic search.	2019

REFERENCES

- [Wynne Hsu](#), Professor of CS at *National University of Singapore*, Director of *IDS*, co-founder of *EyRIS*
- [Jaron Collis](#), co-founder and former CTO at *Plural AI*
- [Grigorios Tsoumakas](#), Associate Professor of Machine Learning and Knowledge Discovery at *Aristotle University of Thessaloniki*, Greece, co-founder of *Medoid AI*