

# CHRIS SAMARINAS

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## SUMMARY

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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. Upcoming PhD student at UMASS.

## EDUCATION

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**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

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**Ro5**, London, United Kingdom (remote)

February 2021 – Present

*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.

**National University of Singapore**, Singapore

February 2020 – Present

*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](#). Published our work at 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*.

**Plural AI**, London, United Kingdom

October 2018 – January 2020

*Research Engineer*

- [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](#) 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

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

**Improving Evidence Retrieval for Automated Explainable Fact-Checking**

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

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

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

## SKILLS

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

## AWARDS

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<b>Bioengineering Hackathon, 1st place</b> , <i>EMB IEEE Student Chapter AUTH, StudentGuru</i> , 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.	2018
<b>Hackathon Thessaloniki, Honor</b> , <i>Municipality of Thessaloniki</i> , awarded for developing CityReport in 24 hours, an online web application for instant issues reporting.	2014
<b>Great Moment for Education Scholarship, Award</b> , <i>Eurobank Ergasias</i> , scholarship for achieving the highest grade at school at the national university admission examination.	2013
<b>National Mathematical Olympiad, First Prize</b> , <i>Hellenic Mathematical Society</i> , awarded for competing in the final stage "Archimedes", top 50 out of over 20,000 participants.	2009

## GRANTS

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<b>Tensorflow Research Cloud Program</b> , <i>Google</i> , granted free access to TPU pods for 6 months for our project on large-scale latent retrieval.	2020
<b>Innovate UK Smart Grant</b> , <i>UK Research and Innovation</i> , <b>1%</b> 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

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- **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*