Antonios Minas Krasakis

PERSONAL DETAILS

EDUCATION

SEPT 2019 - PRESENT PhD Candidate at IRLAB, University of Amsterdam

Research topics: Conversational Search, Information Retrieval

SEPT 2017 - SEPT 2018 MSc. Data Science

University of Amsterdam, The Netherlands

Cum Laude | GPA: 8,4/10,0 | Thesis grade: 9,0/10,0 (top 5%)

SEPT 2008 - JUL 2015 Dipl. Electrical & Computer Engineering

Aristotle University of Thessaloniki, Greece

GPA: 7,0/10,0 | Thesis grade: 10,0/10,0

RESEARCH INTERESTS

• INFORMATION RETRIEVAL (IR)

• LARGE LANGUAGE MODELS (LLMS)

RETRIEVAL AUGMENTED GENERATION (RAG)
 CONVERSATIONAL SEARCH

Publications

| SIGIR-AP 2024 (under submis- sion) | Corpus-Informed Retrieval Augmented Generation of Clarifying Questions A.M. Krasakis, A. Yates, E. Kanoulas |
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| TOIS 2023 | Contextualizing and Expanding Conversational Queries without Supervision A.M. Krasakis, A. Yates, E. Kanoulas |
| SIGIR 2022 | Zero-shot Query Contextualization for Conversational Search A.M. Krasakis, A. Yates, E. Kanoulas |
| ICTIR 2020 | Analysing the Effect of Clarifying Questions on Document Ranking in Conversational Search A.M. Krasakis, M. Aliannejadi, N. Voskarides, E. Kanoulas |
| AKBC 2019 | Semi-supervised Ensemble Learning with Weak Supervision for Biomedical Relationship Extraction A.M. Krasakis, E. Kanoulas, G. Tsatsaronis |

WORKING EXPERIENCE

| SEPT 2022 - | Applied Science Intern at AMAZON, Barcelona, ES |
|-------------|---|
| MAR 2023 | As part of the Amazon product search team, I worked on Learned Sparse Retrieval (LSR) and Multilingual Retrieval. My project focused on (a) applying LSR methods in production product search pipelines and (b) testing their generalization capabilities to new languages. |
| DEC 2018 - | Data Scientist at BOL.coм, Utrecht, NL |
| AUG 2019 | As part of the Data Science team responsible for content, I initiated and worked on a project to facilitate content-based recommendations for pairs of related products . |
| APR 2018 - | Data Scientist (thesis internship) at ELSEVIER, Amsterdam, NL |
| JULY 2018 | Thesis title: Semi-supervised ensemble learning based on weak supervision, for biomedical relation extraction |
| | Worked on Information Extraction from scientific articles. Proposed and implemented a novel weak supervision approach for the task of relationship extraction. |

OCT 2014 -

Data Scientist (thesis internship) at INTELEN SERVICES LTD., Athens, GR

JUL 2015

Performed Data Analysis on energy consumption data in non-interconnected electricity networks. Implemented Machine Learning algorithms for prediction and customer segmentation, with time-series data.

TEACHING

| Guest Lectures: |
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Autumn '23 | Retrieval Augmented Generation

& Spring '24 | Information Retrieval II - MSc. AI (Univ. of Amsterdam)

Autumn '21 | Conversational Passage Retrieval

Information Retrieval II - MSc. AI (Univ. of Amsterdam)

Student Supervision:

2021 - 2022 Andrew Harrison (MSc. Al thesis) 2020 - 2021 Liang Huang (MSc. Al thesis)

Spring 2019 | Renuka Gurung (MSc. Data Science thesis)

Teaching Assistantship:

Autumn '20,'21,'23 | Informa Spring 2020 | Applied

Information Retrieval II (MSc. AI - Univ. of Amsterdam) Applied Machine Learning (BSc. AI - Univ. of Amsterdam)

INVITED TALKS

November '21 | Conversational Passage Retrieval

Dutch School for Information and Knowledge Systems (SIKS)

May '22 | Conversational Dense Retrieval

Neural Search Talks podcast

SHARED TASK PARTICIPATION

Summer '23 | TREC-iKAT:

Combining LLMs & retrieval for creating personalized conversational assistants. Benchmarking LLMs in Retrieve-then-Generate

(RAG) & Generate-then-Retrieve pipelines.

Our submission achieved the best results in this track! [paper]

Summer '21 | TREC-CAsT:

Introduced a novel approach to perform zero-shot Conversational Search, using a token-level Dense Retriever. [paper]

Summer '20 | TREC-COVID:

Worked on a novel weak-supervision/meta-learning approach, trying to train text-to-text rankers from multiple simpler rankers.

LANGUAGES

ENGLISH: Full professional proficiency [C1 Level]
GERMAN: Limited working proficiency [B2 Level]

GREEK: Mother-tongue