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Maria Despoina Siampou

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EDUCATION

University of Southern California   **Los Angeles, United States**
Ph.D. in Computer Science   *Aug 2022 – May 2027 (expected)*
Advisor: Prof. Cyrus Shahabi

National and Kapodistrian University of Athens   **Athens, Greece**
M.Sc. in Computer Science, GPA: 9.67/10.00   *Oct 2020 – Jul 2022*
Advisor: Prof. Manolis Koubarakis

National and Kapodistrian University of Athens   **Athens, Greece**
B.Sc. in Computer Science, GPA: 8.50/10.00   *Oct 2016 – Sept 2020*
Advisor: Prof. Manolis Koubarakis

WORK EXPERIENCE

University of Southern California   **Los Angeles, United States**
Graduate Research Assistant   *Aug 2022 – Present*

- **Learned-based storage for Geo-Multivariate Time Series.** Currently building a learned-based storage to support spatio-temporal range queries on time series data.

National and Kapodistrian University of Athens   **Athens, Greece**
Graduate Research Assistant   *Mar 2021 – Aug 2022*

- **Supervised Progressive Geospatial Interlinking.** Proposed a supervised learning algorithm that models geometries (polygons, linestrings) to feature vectors and computes the probability of two geometries to be topologically related. Incorporated the algorithm into the state-of-the-art Geospatial Interlinking pipeline and achieved competitive results. Delivered a serial implementation in *Java* and a distributed one in *Scala* and *Apache Spark*.

Amazon Web Services – Redshift Database   **Berlin, Germany**
Software Development Engineer Intern   *Sept 2020 – Feb 2021*

- **Introducing ST_ClusterKmeans in Redshift Database.** Added support for spatial window functions in Redshift's architecture. Delivered an end-to-end implementation of ST_ClusterKmeans window function for any type of 2D and 3D geometries. The code was delivered in *C++*.

PUBLICATIONS

Siampou, M.D., Papadakis, G., Mamoulis, N., & Koubarakis, M. (2022). *Supervised Scheduling for Geospatial Interlinking.* In preparation.

Papamichalopoulos, M., Papadakis, G., Mandilaras, G., **Siampou, M.D.**, Mamoulis, N., & Koubarakis, M. (2022). *Three-dimensional Geospatial Interlinking with JedAI-spatial.* arXiv preprint arXiv:2205.01905.

Siampou, M.D., Karalis, N. & Koubarakis, M. (2022). *Extending YAGO4 Knowledge Graph with Geospatial Knowledge.* GeoLD 2022@ESWC.

Honors & Awards

- Graduate Fellowship – USC Viterbi School of Engineering, *2022*
- Tuition Waiver for Top Applicants – University of Athens, *2021*
- Scholarship for Top Undergraduates – Greek State Scholarships Foundation, *2017, 2018, 2020*
- Panhellenic Examination, Award of Excellence – Hellenic Petroleum Industry, *2016*

Teaching Experience

- Artificial Intelligence – National and Kapodistrian University of Athens, *Fall 2020/21*
- Data Structures & Algorithms – National and Kapodistrian University of Athens, *Spring 2021/22*
- Systems Programming – National and Kapodistrian University of Athens, *Spring 2021*

Skills

Languages	C++, C, Python, Java, Scala, Bash & C Shell
Programming Paradigms	Procedural, Object Oriented, Logic, Functional
Database Languages	SQL, DDL, DML
Database Systems	PostgreSQL, MySQL
Operating Systems	Windows, Linux
Other	Git, Spark