

Maria Despoina Siampou

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Education

University of Southern California

PhD in Computer Science

- Advisor: Prof. Cyrus Shahabi

Los Angeles, USA

Aug 2022 – Present

National & Kapodistrian University of Athens

MSc in Computer Science, *GPA: 9.67/10 (honors)*

- Thesis: Supervised Progressive Geospatial Interlinking
- Advisor: Prof. Manolis Koubarakis

Athens, Greece

Oct 2020 – Jul 2022

National & Kapodistrian University of Athens

BSc in Computer Science, *GPA: 8.5/10 (honors)*

- Thesis: Extending YAGO4 with Geospatial Knowledge
- Advisor: Prof. Manolis Koubarakis

Athens, Greece

Sep 2016 – Sep 2020

Professional Experience

University of Southern California

Graduate Research Assistant

- Member of [InfoLab](#), led by Prof. Cyrus Shahabi
- Working on managing and analyzing spatial and spatio-temporal data types (such as trajectory data and polygonal geometries) to accelerate spatial reasoning tasks.

Los Angeles, USA

Aug 2022 – Present

National & Kapodistrian University of Athens

Graduate Research Assistant

- Member of [AI Team](#), led by Prof. Manolis Koubarakis
- Worked on Geospatial Interlinking pipelines, to join pairs of geometries (i.e., polygons) based on their topological relationships.

Athens, Greece

Mar 2021 – Jul 2022

Amazon Web Services, Redshift Database

Software Development Engineer Intern

- Added support for spatial window functions and implemented ST_ClusterKMeans.

Berlin, Germany

Aug 2020 – Feb 2021

Conference Publications

[6] [M.D. Siampou*](#), J. Li*, J. Krumm, C. Shahabi, and L. Hu. Poly2Vec: Polymorphic encoding of geospatial objects for spatial reasoning with deep neural networks. In *review*, 2024

[5] A. Hajisafi, [M.D. Siampou](#), J. Bi, L. Nocera, and C. Shahabi. Wearables for health (w4h) toolkit for acquisition, storage, analysis and visualization of data from various wearable devices. In *IEEE ICDE – Demo Track*, 2024

[4] [M.D. Siampou](#), L. Nocera, J. Oh, B. Smith, and C. Shahabi. An algorithmic approach for detecting neuromotor developmental disabilities in infants from wearable sensor data. In *IEEE EMBC*, 2024

[3] [M.D. Siampou](#), G. Papadakis, N. Mamoulis, and M. Koubarakis. Supervised scheduling for geospatial interlinking. In *ACM SIGSPATIAL*, 2023

- [2] A. Hajisafi, H. Lin, S. Shaham, H. Hu, M.D. Siampou, Y.-Y. Chiang, and C. Shahabi. Learning dynamic graphs from all contextual information for accurate point-of-interest visit forecasting. In *ACM SIGSPATIAL*, 2023
- [1] M.D. Siampou, N. Karalis, and M. Koubarakis. Extending YAGO4 knowledge graph with geospatial knowledge. In *GeoLD@ ESWC*, 2022

Journal Publications [1] M. Papamichalopoulos, G. Papadakis, G. Mandilaras, M.D. Siampou, N. Mamoulis, and M. Koubarakis. Three-dimensional geospatial interlinking with jedai-spatial. *Journal of Web Semantics*, 2024

Honors and Scholarships USC Graduate Fellowship, *Viterbi School of Engineering* 2023
 Accepted into CRA-WP Grad Cohort (with funding to attend and present)
NSF-funded Workshop 2023
 Scholarship for Diligent Students from Disadvantaged Backgrounds,
Greek State Scholarship Foundation (awarded for 3 years) 2017 - 2020
 Award for Outstanding Performance in Panhellenic Exams,
HelleniQ Energy, Greece 2016

Grants WiSE Travel Grand for Graduate Students and Postdoctoral Scholars (\$700) 2024
 NSF Travel Award to attend IEEE ICDE (\$1300) 2024
 NSF Travel Award to attend ACM SIGSPATIAL (\$1200) 2023
 USC GSG Professional Development Fund (\$500) 2023
 NSF Travel Award to attend IEEE ICDE (\$450) 2023

Teaching Experience **Teaching Assistant, University of Southern California**
 • CSCI 587: Geospatial Information Management Fall 2024

Teaching Assistant, National & Kapodistrian University of Athens
 • CS - K08: Data Structures & Algorithms Spring 2021 & 2022
 • CS - YS02: Artificial Intelligence I Fall 2020 & 2021
 • CS - K24: Systems Programming Spring 2021

Skills **Technical Skills:** C++, C, Python, Java, SQL, PyTorch, scikit-learn, pandas, NumPy, Docker, Git
Languages: English (proficient), German (basic), Greek (native)

Service and Outreach **External Reviewer**
 IEEE ICDE 2024

Leadership and Other Professional Activities
 • Research Mentor, *USC Viterbi's Summer High School Intensive in Next-Generation Engineering (SHINE) Program* 2024
 • Graduate Student Mentor, *USC WiSE Mentorship Program* 2024
 • Organizing Member, *ACM Student Chapter, University of Athens* 2019

Professional Memberships
 IEEE (Graduate Student Membership), ACM (Student Membership), ACM-W