Serafeim (Makis) Papadias

PROFILE

PhD in Computer Science with expertise in dynamic graph analytics and streaming algorithms, specializing in community detection and scalable graph mining. Seeking to apply graph algorithm optimization expertise to interdisciplinary domains, particularly biological networks. Strong track record of publishing in top venues (VLDB, ICDE) and mentoring students. Experienced in developing novel, efficient algorithms for processing large-scale dynamic graphs.

PERSONAL INFORMATION

Phone number: +306987561883
Email address: makisntpap@gmail.com
Web: spapadias.github.io

EDUCATION

06/2019 – 09/2024   BERLIN, GERMANY
Computer Science | Doctor of Philosophy (Ph.D.)
Technical University of Berlin
Thesis: Mining Highly Dynamic Graphs
Advisor: Prof. Volker Markl
Grade: Magna Cum Laude

02/2016 – 09/2018   HONG KONG, HONG KONG
Computer Science | Master of Philosophy (M.Phil)
Hong Kong University of Science & Technology
Thesis: Massively Parallel Output-optimal Streaming Joins
Advisor: Prof. Ke Yi
GPA : 3.817/4.00

10/2009 – 09/2015   ATHENS, GREECE
Electrical and Computer Engineering | Diploma (M.Eng)
National Technical University of Athens
Thesis: Trajectory-aware Load Adaption in GeoStreaming
Advisor: Kostas Patroumpas
Major: Computer Science, Minor: Mathematics
GPA: 8.73/10 (top 7%)

PUBLICATIONS

05/2024
Overlapping Community Detection on Dynamic Graphs
Under Submission
Serafeim Papadias, Grigorios Loukides, Zoi Kaoudi, Volker Markl
Code: https://github.com/spapadias/communis

09/2023
Counting Butterflies in Fully Dynamic Bipartite Graph Streams
ICDE 2024
Serafeim Papadias, Zoi Kaoudi, Varun Pandey, Jorge-Arnulfo Quiane-Ruiz, Volker Markl
Code: https://github.com/spapadias/abacus

07/2022
Space-Efficient Random Walks on Streaming Graphs
VLDB 2023
Serafeim Papadias, Zoi Kaoudi, Jorge-Arnulfo Quiane-Ruiz, Volker Markl
Code: https://github.com/spapadias/wharf

08/2020
In-Place Updates in Tree-Encoded Bitmaps
SSDBM 2022
Marcellus Prama Saputra, Eleni Tzirita Zacharatou, Serafeim Papadias, Volker Markl
Code; https://github.com/marcellus-saputra/Thuja

08/2019
Tunable Streaming Graph Embeddings at Scale
PhD@VLDB 2020
Serafeim Papadias
YouTube: http://tiny.cc/vfqszz

PUBLICATIONS

03/2019
Trajectory-aware Load Adaption for Continuous Traffic Analytics
SSTD 2019
Kostas Patroumpas, Serafeim Papadias
Code: https://github.com/spapadias/rienNeVaPlus

03/2019
Streaming HyperCube: A Massively Parallel Stream Join Algorithm
EDBT 2019
Yuan Qiu, Serafeim Papadias, Ke Yi

WORK EXPERIENCE

06/2019 – 09/2024   BERLIN, GERMANY
Research Associate
Technical University of Berlin
Conducted research on streaming graph data management with Prof. Volker Markl

02/2016 – 09/2018   CLEAR WATER BAY, HONG KONG
Research Assistant
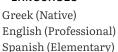**Hong Kong University of Science & Technology**
Conducted research on worst-case optimal streaming join algorithms with Prof. Ke Yi

SKILLS

– COMPUTER SKILLS

C++
Java
Julia
Python
Apache Spark & Flink
PostgreSQL
OpenMP
LaTeX

– LANGUAGES

Greek (Native)
English (Professional)
Spanish (Elementary)

AWARDS

02/2016
HKUST Postgraduate Studentship
Hong Kong University of Science & Technology
Postgraduate scholarship from Hong Kong University of Science and Technology

AWARDS

11/2009
Great Moment for Education
Eurobank
Eurobank Award for the best student of each high school

03/2008
Distinction in Panhellenic Mathematics Society's Contest
Panhellenic Mathematics Society

CERTIFICATES

10/2024
Learning Julia
LinkedIn
https://tinyurl.com/muncy5nk

01/2016
IELTS
British Council

08/2015
Big Data XSeries & Scalable Machine Learning from UC BerkeleyX
edX
Link1: https://shorturl.at/dhuZY
Link2: https://shorturl.at/PcJ0e

STRENGTHS

Problem-Solving   Analytical Thinking

Algorithms   Graphs   Mentorship

Thesis Supervision   Technical Writing