George Christodoulou

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Education

Ph.D. in Database Systems   Mar 2020 - Sep 2023
University of Ioannina   *Ioannina, Greece*
Topic: "Interval Data Management in Main Memory"
Supervisor: Nikolaos Mamoulis

M.Sc. in Software Engineering   Sep 2018 - Feb 2020
University of Ioannina   *Ioannina, Greece*
Thesis: "A Prefix-based Hybrid Solution for Main Memory Indexing"
Supervisor: Nikolaos Mamoulis
GPA: 9.1/10

Diploma (M.Eng.) in Computer Science & Engineering   Sep 2011 - Sep 2017
University of Ioannina   *Ioannina, Greece*
Thesis: "Routing Methods with Machine Learning on Delay Tolerant Networks."
Supervisor: Evangelos Papapetrou
GPA: 6.74/10

Experience

Postdoctoral Researcher   Oct 2023 – Present
Delft University of Technology   *Delft, Netherlands*

- Working on stream processing and serverless computing.

Research Assistant   May 2019 – Sep 2019
Research & Technology Hellas (CERTH)   *Thessaloniki, Greece*

- worked on designing and developing an Anomaly detector based on machine learning techniques for the "Secure and Safe IoT (SerIoT)" project.
- used Python, PyTorch, Tensorflow.

Software engineer Intern   Jul 2016 – Aug 2016
Natech S.A.   *Ioannina, Greece*

- worked on designing and developing a ASP.NET MVC web application.
- used C , MVC

Research Program Scholar   May 2020 - Jul 2023
Organization of Special Account of Research Funds, University of Ioannina   *Ioannina, Greece*

- Smart City Bus Project (IoT Platform for Transportation)
- ProximIoT Project (IoT Platform for Proximity Marketing)

Internships

Research Intern   Feb 2022 - Apr 2022
University of Mainz (JGU)   *Mainz, Germany*
working with Prof. Panagiotis Bouros.

Research Intern   Jan 2023 - Feb 2023
Hong Kong University of Science and Technology (HKUST)   *Hong Kong*
working with Prof. Dimitris Papadias.

Teaching

University of Ioannina   Sep 2017 - July 2023
Department of Computer Science and Engineering   *Ioannina, Greece*

- Fall 2017, 2018, 2019: Networks lab assistant.
- Spring 2018: Java lab assistant.
- Fall 2020,2021,2022: Python lab assistant.

Student Supervision

Master Theses Supervision

- Giorgos Kotsinas, Querying intervals (working title), Master thesis, Department of Computer Science and Engineering, UoI

Bachelor Theses Supervision

- Jan Raider, A user interface for visualizing interval indexing (working title), Bachelor thesis, Insitute of Computer Science, JGU

- Vasileios Georgoulas, Bachelor thesis, A web application for passenger movement with public transport, Department of Computer Science and Engineering, UoI

- Danae Tsaousi, Bachelor thesis, Visualization and analysis of public transport data, Department of Computer Science and Engineering, UoI

- Penelope Eleftheriadi, Bachelor thesis, Visualization and analysis of public transport data, Department of Computer Science and Engineering, UoI

- Filippos-Apostolos Papachristou, Bachelor thesis, Implementation and evaluation of a main memory temporal index, Department of Computer Science and Engineering, UoI

Publications

International Journals

- **HINT: A Hierarchical Interval Index for Allen Relationships**
  G. Christodoulou, P. Bouros, N. Mamoulis.
  International Journal on Very Large Databases (VLDBJ) 2023.

International Conferences

- **HINT: A Hierarchical Index for Intervals in Main Memory**
  G. Christodoulou, P. Bouros, N. Mamoulis.
  ACM International Conference on Management of Data (SIGMOD) 2022.

- **SmartCityBus - A Platform for Smart Transportation Systems.**
  G. Bouloukakis, C. Zeginis, N. Papadakis, K. Magoutis, **G. Christodoulou**,
  C. Kosyfaki, K. Lampropoulos, N. Mamoulis , P. Bouros, N. Mamoulis.
  ACM International Conference on Web Search and Data Mining (WDSM) 2023 (abstract).

- **LIT: Lightning-fast In-memory Temporal Indexing**
  G. Christodoulou, P. Bouros, N. Mamoulis.
  ACM International Conference on Management of Data (SIGMOD) 2024.

International Workshops

- **Efficient And Scalable Management Of Interval Data**
  G. Christodoulou
  International Conference on Extending Database Technology PhD Workshop (EDBT PhD Workshop) 2023.

Service

- Reviewer for PAKDD 2021, ICDE 2024
- External Reviewer for ICDE 2019-2023, VLDB 2020-2024, SIGMOD 2020, EDBT 2020, DASFAA 2023

Volunteer Experience

- Conference Technical Support Volunteer at EDBT 2023, Ioannina, Greece

Technical Skills

Programming Languages: C/C++ (intermediate), Java (intermediate), Python (intermediate).
Other Skills: Complex data management, Complex data indexing, Machine learning techniques, Tensorflow, PyTorch, ASP.NET MVC

Languages

Greek (native speaker), Dutch (native speaker), English (B2 Degree).