Dimitrios Halatsis

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EDUCATION

Imperial College   London, UK
PhD in Computing   *Jan. 2023 – Now*

EPFL   Lausanne, Switzerland
MS in Computer Science: 5.22/6   *Sep. 2020 – June 2022*

University of Athens   Athens, Greece
*BS in Computer Science and Telecommunications: 9.24/10 (**valedictorian**)*   *Oct. 2014 – June 2019*

EXPERIENCE

PhD researcher   Jan. 2023 – Now
Imperial College   *London, UK*

- My tentative PhD research project is dedicated to able to process complex EMG signals from moving sources using representation learning techniques.

Master Thesis   Feb. 2022 – Jun. 2022
EPFL   *Lausanne, Switzerland*

- Research on deep learning and higher order neural networks.
- Theoretical arguments to support improved initialization scheme and architectures for higher order networks.
- Empirical evidence that supports the theoretical findings.

Semester Project (part-time)   Feb. 2021 – Jun. 2021
EPFL   *Lausanne, Switzerland*

- Worked on big data entities resolution problem.
- Developed and implemented algorithms to link speakers to entities.
- Ran benchmarks for recommendation methods on massive dataset of 20 years' worth of news.

Software Engineer   Oct. 2019 – Sep. 2020
University of Athens   *Athens, Greece*

- Worked on ExtremeEarth project, funded by EU's Horizon programme.
- Developed RDF database able to process queries involving terabytes of data.

Software Engineer   Mar. 2019 – Sep. 2019
Flexcar   *Athens, Greece*

- First hire of startup company to mainly work on company's technology.
- Developed company's site, sales tool and accounting tool that massively boosted sales productivity in the company's early stages.
- Assisted with company's strategic decisions and helped in securing a seed funding.
- Flexcar has received over 250 M of funding as of today.

Bachelor Thesis (part-time)   June. 2018 – March. 2019
University of Athens   *Athens, Greece*

- Worked on extending Facebook's Redex optimizer.
- Extended's Redex static information to use results from the stronger framework Doop.
- Higher accuracy analysis resulted in more optimization being possible.

Distinctions and Awards

Winner of 3rd Cassini Hackathon May 2022

European Cassini Hackathon
- Competed against approximately 100 teams across Europe.
- Implemented a computer vision based applications to automate road and trail mapping.
- Won 1st place amongst all teams in Europe.
- Contest's Site
- Our Site

Finalist at Sigmod 2018 programming Contest June 2018

SIGMOD 2018 *Houston, Texas*
- Invited to attend Sigmod/Pods conference and awarded.
- Contest's Site
- Our Poster

Teaching

Data Structures | *University of Athens* Fall 2020
- Professor: Manolis Koubarakis
- Role: Teaching Assistant
- Presented assignments, graded them and attended Q/A sessions.

Database Systems | *University of Athens* Fall 2019
- Professor: Yannis Ioannidis
- Role: Teaching Assistant
- Created assignments for students, presented them in classroom and graded the,.
- Organized and performed Q/A sessions.

Artificial Intelligence | *University of Athens* Fall 2019
- Professor: Manolis Koubarakis
- Role: Teaching Assistant
- Presented assignments, graded them and attended Q/A sessions.

Volunteering

Student Volunteer Oct. 2019

Splash 2019 *Athens, Greece*
- General Chair: Yannis Smaragdakis.
- Responsible for handling presentation equipment, gathering statistics about the conference and assisting with any problems that might arise.

Research Interests

Theory:	Deep learning, Polynomial Learning, Sublinear/Streaming Algorithms, Sparse Recovery.
Applications:	Computer Vision applications, Privacy Preserving Machine Learning, Data Mining

Coursework

Data Science:	Machine learning, Statistics for data science, Applied data analysis, Mathematics of data.
Theory:	Advanced algorithms, Sublinear algorithms for big data analysis, Distributed algorithms
Systems:	Database systems, Information security and privacy

Technical Skills

Programming Languages:	C, C++, Python, Java, Scala, Prolog, Haskell
Frameworks:	PyTorch, Tensorboard, Pandas, Sckit-Learn, SparkSQL, Spark ML
Tools:	Git, Docker, Google Collab, AWS

Languages

English:	C2
Greek:	Native