

# Dimitrios Halatsis

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## EDUCATION

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### EPFL

*MS in Computer Science: 5.22/6*

Lausanne, Switzerland

*Sep. 2020 – June 2022*

### University of Athens

*BS in Computer Science and Telecommunications: 9.24/10 (valedictorian)*

Athens, Greece

*Oct. 2014 – June 2019*

## EXPERIENCE

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### Master Thesis

*EPFL*

Feb. 2022 – Jun. 2022

*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)

*EPFL*

Feb. 2021 – Jun. 2021

*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

*University of Athens*

Oct. 2019 – Sep. 2020

*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

*Flexcar*

Mar. 2019 – Sep. 2019

*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)

*University of Athens*

June. 2018 – March. 2019

*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

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### Winner of 3rd Cassini Hackathon

*European Cassini Hackathon*

May 2022

- 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

*SIGMOD 2018*

June 2018

*Houston, Texas*

- Advisor: Yannis Ioannidis
- Represented University of Athens at international programming contest.
- Invited to attend Sigmod/Pods conference and awarded.
- Contest's Site
- Our Poster

## TEACHING

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### **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

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### **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

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

## COURSEWORK

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**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

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

## LANGUAGES

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**English:** C2  
**Greek:** Native