

Georgios Damaskinos

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RESEARCH INTERESTS	Machine learning, Privacy, Mobile computing, Distributed systems, Recommender systems	
EDUCATION	<p>Ecole Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland Doctor of Philosophy, Computer Science <i>Thesis:</i> “Private and Secure Distributed Learning” Distributed Computing Lab - Rachid Guerraoui</p> <p>National Technical University of Athens (NTUA), Athens, Greece Diploma in Electrical and Computer Engineering (5-year academic program, equivalent to M.Sc. degree) GPA: 9.46 / 10 (top 2%) Major: Computer Systems, Computer Software, Computer Networks <i>Thesis:</i> “Profiling and cost modeling of join algorithms for Big Data Analytics” Built a machine learning tool that automatically chooses the optimal engine (Spark, Hive, PostgreSQL) and configuration for the deployment of various join algorithms. Computing Systems Laboratory - Nectarios Koziris</p>	<p>09/2015 - 09/2020</p> <p>10/2010 - 07/2015</p>
PUBLICATIONS	<p>[7] “Differentially Private Stochastic Coordinate Descent” G. Damaskinos, C. Duennner, R. Guerraoui, N. Papandreu, T. Parnell AAAI 2021 and PPML @ NeurIPS 2020, paper, code, video</p> <p>[6] “FLet: Online Federated Learning via Staleness Awareness and Performance Prediction” G. Damaskinos, R. Guerraoui, A.M. Kermarrec, V. Nitu, R. Patra, F. Taiani Middleware 2020 (best paper award), paper, code, video</p> <p>[5] “DELF: Safeguarding deletion correctness in Online Social Networks” K. Cohn-Gordon, G. Damaskinos, D. Neto, J. Cordova, B. Reitz, B. Strahs, D. Obenshain, P. Pearce, I. Papagiannis USENIX Security Symposium 2020, paper, video</p> <p>[4] “The Imitation Game: Algorithm Selection by Exploiting Black-Box Recommenders” G. Damaskinos, R. Guerraoui, E. Merrer, C. Neumann NETYS 2020 (International Conference on Networked Systems), paper, code, video</p> <p>[3] “AggregaThor: Byzantine Machine Learning via Robust Gradient Aggregation” G. Damaskinos, E.M. El Mhamdi, R. Guerraoui, A. Guirguis, S. Rouault MLSys 2019 (Conference on Machine Learning and Systems), paper, code, video</p> <p>[2] “Asynchronous Byzantine Machine Learning (the case of SGD)” G. Damaskinos, E.M. El Mhamdi, R. Guerraoui, R. Patra, M. Taziki ICML 2018 (International Conference on Machine Learning), paper, code</p>	<p>12/2020</p> <p>12/2020</p> <p>08/2020</p> <p>06/2020</p> <p>05/2019</p> <p>07/2018</p>

[1] “Capturing the Moment: Lightweight Similarity Computations”
 G. Damaskinos, R. Guerraoui, R. Patra
ICDE 2017 (IEEE International Conference on Data Engineering), [paper](#), [code](#) 05/2017

EXPERIENCE [Facebook](#), London, United Kingdom
Software Engineer 10/2020 - Present
Software Engineering Intern 06/2019 - 08/2019
 Worked on the DELF paper [5] by mainly focusing on the performance evaluation. Implemented optimizations as a result of the visibility that this evaluation provided.
Language: Hack, SQL, Python

[IBM](#), Zurich, Switzerland
Research Intern 06/2018 - 09/2018
 Formally derived and implemented a differentially private optimization algorithm for generalized linear models, as part of the core algorithmic component of [SnapML](#). The work continued at EPFL and led to [7].
Language: Python

[Technicolor](#), Rennes, France
Research Intern 06/2017 - 08/2017
 Designed and implemented a method to boost the evaluation of a new recommendation service by exploiting the output of a supposedly well-established online recommender, acting as a black-box that the new service can query. Published [patent PCT/EP19/052345](#). The work continued at EPFL and led to [4].
Language: Python

[Athens Clue](#), Athens, Greece
Web Developer 12/2014
 Designed and implemented a web application for an escape room.
Language: JavaScript, HTML, CSS

High School Students, Athens, Greece
Tutor 03/2012 - 06/2015
 Provided complementary mathematics, physics, and programming lectures to 8 students who either needed additional help or wanted to go beyond their school curriculum and perfect their skills.

AWARDS **Best Paper Award**, Middleware 12/2020
Best Teaching Assistant Award, EPFL 12/2019
Runner-up for Best Internship Award, Technicolor 11/2017
EDIC PhD Fellowship, EPFL 04/2015
Thomaideio Award for the 3rd best performance among graduates, NTUA 2015
Papakyriakopoulos Award for excellence in Mathematics, NTUA 2011

PROFESSIONAL SERVICE *Reviewer:* ICML 2021 (expert reviewer), AAAI 2021, NIPS 2020 (top 10% reviewer),
 ICML 2020 (top 33% reviewer), ICML 2019, MLSys 2019 (external)
Project mentor during PhD: 1 PhD semester, 1 MSc thesis, 5 MSc semester, 1 BSc semester, 1 intern
EPFL teaching assistant: Distributed algorithms CS-451 (2018, 2019),
 Real-time systems CS-321 (2018, 2019), Analysis 1 MATH-101 (2016, 2017)

TECHNICAL SKILLS (MAIN) *Programming:* Python, Java, C, C++
Frameworks/Tools: TensorFlow, Apache Spark, Android NDK, PyTorch

LANGUAGES Greek: Native proficiency
 English: Full professional proficiency (C2 - Michigan University ECPE)
 German: Limited working proficiency (B1 - Goethe Zertifikat)
 French: Elementary proficiency