

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>[1] “Differentially Private Stochastic Coordinate Descent” G. Damaskinos, C. Duennner, R. Guerraoui, N. Papandreou, T. Parnell AAAI 2021 and PPML @ NeurIPS 2020, paper, code</p> <p>[2] “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>[3] “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>[5] “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>[6] “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>

	<p>[7] “Capturing the Moment: Lightweight Similarity Computations” G. Damaskinos, R. Guerraoui, R. Patra ICDE 2017 (IEEE International Conference on Data Engineering), paper, code</p>	05/2017
EXPERIENCE	<p>Facebook, London, United Kingdom Software Engineer Software Engineering Intern Worked on the DELF paper [3] by mainly focusing on the performance evaluation. Implemented optimizations as a result of the visibility that this evaluation provided. <i>Language:</i> Hack, SQL, Python</p> <p>IBM, Zurich, Switzerland Research Intern 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 [1]. <i>Language:</i> Python</p> <p>Technicolor, Rennes, France Research Intern 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. Patent filed with number PCT/EP19/052345. The work continued at EPFL and led to [4]. <i>Language:</i> Python</p> <p>Athens Clue, Athens, Greece Web Developer Designed and implemented a web application for an escape room. <i>Language:</i> JavaScript, HTML, CSS</p> <p><u>High School Students</u>, Athens, Greece Tutor 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.</p>	<p>10/2020 - Present 06/2019 - 08/2019 06/2018 - 09/2018 06/2017 - 08/2017 12/2014</p>
AWARDS	<p>Best Paper Award, Middleware Best Teaching Assistant Award, EPFL Runner-up for Best Internship Award, Technicolor EDIC PhD Fellowship, EPFL Thomaideio Award for the top graduating students, NTUA Papakyriakopoulos Award for excellence in Mathematics, NTUA</p>	<p>12/2020 12/2019 11/2017 04/2015 2015 2011</p>
PROFESSIONAL SERVICE	<p><i>Reviewer:</i> AAAI 2020, NIPS 2020 (top 10% reviewer), ICML 2020 (top 33% reviewer), ICML 2019, MLSys 2019 (external) <i>Project mentor during PhD:</i> 1 PhD semester, 1 MSc thesis, 5 MSc semester, 1 BSc semester, 1 intern <i>EPFL teaching assistant:</i> Distributed algorithms CS-451 (2018, 2019), Real-time systems CS-321 (2018, 2019), Analysis 1 MATH-101 (2016, 2017)</p>	
TECHNICAL SKILLS (MAIN)	<p><i>Programming:</i> Python, Java, C, C++ <i>Frameworks/Tools:</i> TensorFlow, Apache Spark, Android NDK, PyTorch</p>	
LANGUAGES	<p>Greek: Native proficiency English: Full professional proficiency (C2 - Michigan University ECPE) German: Limited working proficiency (B1 - Goethe Zertifikat) French: Elementary proficiency</p>	