Leonidas Tsepenekas

Curriculum Vitae

Research Interests

Main Topics: Algorithmic Fairness, Explainability, Approximation and Randomized Algorithms, Combinatorial and Stochastic Optimization, Machine Learning, Clustering and Facility Location Problems.

Education

- 08/2017- University of Maryland, College Park, PhD in Theoretical Computer Science,
- 10/2022 Academic Advisers: Aravind Srinivasan and John P. Dickerson, Dissertation title: On Algorithmic Fairness and Stochastic Models for Combinatorial Optimization and Unsupervised Machine Learning
- 10/2010- National Technical University of Athens (NTUA), Athens, Greece
- 09/2016 O BSc & MSc in Electrical and Computer Engineering (5-year joint degree, 300 ECTS)
 - Grade: 8.84/10 (top 5% of my class)
 - Grade in major: 9.456/10
 - $\odot\,$ Thesis: "Approximation Algorithms for Scheduling Malleable Jobs".
 - 2010 **High School Graduation**, 14^{th} *High School of Peristeri* Nationwide University Entrance Examination Score: 19.375/20.000, the highest among all students of the school, top 1% nationwide.

Teaching Experience

- 2015-2017 Computer Programming and Algorithms and Complexity courses at NTUA
- Fall 2017 Teaching assistant at UMD for CMSC 351: Introduction to Algorithms
- Spring 2018 Teaching assistant at UMD for CMSC 351: Introduction to Algorithms
- Summer 2018 Teaching assistant at UMD for CMSC 250: Discrete Mathematics
 - Fall 2018 Teaching assistant at UMD for CMSC 351: Introduction to Algorithms
 - Spring 2019 Teaching assistant for CMSC 451: Design and Analysis of Computer Algorithms

Reviewing Experience

- 2018 TALG-2018, ACM Transactions on Algorithms
- 2021 ICML-2021, International Conference on Machine Learning
- 2021 NeurIPS-2021, Conference on Neural Information Processing Systems
- 2022 AISTATS-2022, International Conference on Artificial Intelligence and Statistics
- 2023 NeurIPS-2023, Conference on Neural Information Processing Systems

Work Experience

- 05/2019– **Research Intern**, University of Virginia Biocomplexity Institute and Initiative. 08/2019 Supervised by Anil Vullikanti
- 06/2022– Al Summer Research Associate, JPMorgan Chase & Co. Supervised by Ivan 08/2022 Brugere
- 02/2023– **Research Scientist**, JPMorgan Chase & Co. Today

Publications

- 2016 Improving Scheduling Of Data Transmission In Tdma Systems, *T. Aslanidis, L. Tsepenekas*, (Alphabetic Order), (ICAIT)
- 2016 Message Routing in Wireless and Mobile Networks Using TDMA Technology, *T. Aslanidis, L. Tsepenekas*, (Alphabetic Order), International Journal of Wireless & Mobile Networks
- 2019 A Unified Approach to Online Matching with Conflict-Aware Constraints, P. Xu, Y. Shi, H. Cheng, J.P. Dickerson, K.A. Sankararaman, A. Srinivasan, Y. Tong, L. Tsepenekas, AAAI
- 2020 A Pairwise Fair and Community-preserving Approach to k-Center Clustering, B. Brubach, J.P. Dickerson, S. Khuller, A. Srinivasan, L. Tsepenekas, (Alphabetic Order), ICML
- 2020 **Probabilistic Fair Clustering**, S.A. Esmaeili, B. Brubach, L. Tsepenekas, J.P. Dickerson, NeurIPS
- 2021 Fairness, Semi-Supervised Learning, and More: A General Framework for Clustering with Stochastic Pairwise Constraints, B. Brubach, J.P. Dickerson, A. Srinivasan, L. Tsepenekas, (Alphabetic Order), AAAI
- 2021 Approximating Two-Stage Stochastic Supplier Problems, B. Brubach, N. Grammel, D. Harris, A. Srinivasan, L. Tsepenekas, A. Vullikanti, (Alphabetic Order), APPROX
- 2022 Deploying Vaccine Distribution Sites for Improved Accessibility and Equity to Support Pandemic Response, G. Li, A. Li, M. Marathe, A. Srinivasan, L. Tsepenekas, A. Vullikanti, (Alphabetic Order), AAMAS Best Student Paper Award
- 2022 **A New Notion of Individually Fair Clustering:** *α*-Equitable *k*-Center, *D. Chakrabarti, J.P. Dickerson, S.A. Esmaeili, A. Srinivasan, L. Tsepenekas*, (Alphabetic Order), AISTATS
- 2022 Fair Disaster Containment via Graph-Cut Problems, M. Dinitz, A. Srinivasan, L. Tsepenekas, A. Vullikanti, (Alphabetic Order), AISTATS
- 2022 Controlling Epidemic Spread using Probabilistic Diffusion Models on Networks, A. Babay, M. Dinitz, A. Srinivasan, L. Tsepenekas, A. Vullikanti, (Alphabetic Order), AISTATS

- 2023 Efficient and Equitable Deployment of Mobile Vaccine Distribution Centers, Q. Chen, G. Li, A. Li, M. Marathe, A. Srinivasan, L. Tsepenekas, A. Vullikanti, (Alphabetic Order), IJCAI
- 2023 Comparing Apples to Oranges: Learning Similarity Functions for Data Produced by Different Distributions, L. Tsepenekas, I. Brugere, F. Lecue, D. Magazzeni, NeurIPS
- 2024 SHAP@k:Efficient and Probably Approximately Correct (PAC) Identification of Top-k Features, S. Kariyappa, L. Tsepenekas, F. Lécué, D. Magazzeni, AAAI

Tutorials

2021 **Co-organized tutorial on Fair Clustering, which was presented at AAAI 2021** Check fairclustering.com

Honors and Awards

Eurobank"A great moment for education"
For graduating with the highest score in my high schoolUniversity of
MarylandDean's FellowshipGerontelis
FoundationGraduate Studies ScholarshipUniversity of
MarylandAnn G. Wylie Dissertation FellowshipProgramming & Computer skillsProgrammingC/C++, Python, Java, Haskell, ML

Skills Linux/Unix, Windows, LATEX

Languages

Greek Native English Fluent