Majid Daliri

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Education

New York University, New York, USA 2022 - 2027
Ph.D. in Computer Science
Advised by Prof. Christopher Musco

University of Tehran, Tehran, Iran 2017 - 2022
Undergraduate student of B.Sc. in **Computer Engineering**

- Cumulative GPA: **3.97/4.0**

Publications

- **Simple Analysis of Priority Sampling** (Preprint) 2023
  Majid Daliri, Juliana Freire, Christopher Musco, Aécio Santos, Haoxiang Zhang
- **KDEformer: Accelerating Transformers via Kernel Density Estimation** (ICML) 2023
  Amir Zandieh, Insu Han*, **Majid Daliri***, Amin Karbasi (* equal contribution)
- **Weighted Minwise Hashing Beats Linear Sketching for Inner Product Estimation** (PODS) 2023
  Aline Bessa, **Majid Daliri**, Juliana Freire, Cameron Musco, Christopher Musco, Aécio Santos, Haoxiang Zhang
- **Efficient Approximations for Cache-conscious Data Placement** (PLDI) 2022
  Ali Ahmadi, **Majid Daliri**, Amir Kafshdar Goharshady, Andreas Pavlogiannis
- **A 10-Approximation of the $\frac{\pi}{2}$-MST** (STACS) 2022
  Ahmad Biniaz, **Majid Daliri**, AmirHossein Moradpour

Internship Highlights Program

Research Internship, HKUST Jun 2021 - Jun 2022
under the supervision of Professor A. Goharshady, my project was to design an algorithm to parameterize the cache-conscious data placement and find the exact cache misses or an approximation.

Research Internship, Max-Planck-Institut für Informatik Apr 2021 - Jan 2022
under the supervision of Dr A. Zandieh, the research has focuses on improving the time complexity and reducing the sample counts of the approaches associated with the learning and reconstruction of Fourier of sparse set functions.

Awards and Honors

Research Grant, University of Salzburg Summer 2022
Awarded a €5,000 grant for a research internship focusing on algorithms for distribution bisimilarity, probabilistic systems verification, and quantum annealing projects.

Hong Kong PhD Fellowship Scheme (HKPFS) scholarship (declined) 2022
totaling HK$1,445,200 (approximately $184,100). I was among the top 300 students selected worldwide across all majors, showcasing academic excellence and research potential.

University of Michigan, Department of IOE Fellowship (declined) 2022
$115,960 stipend over five years. Selected for exceptional academic merit.

ACM ICPC - Regional (University of Tehran) 2019
ranked 6^{th} among more than 100 team all around the Iran.

Iranian National Olympiad in Informatics Finalist (IOI, Iran) 2016
are awarded to around 50 selected after a year of competition among over 10000 Students.

Service

Reviewer for Royal Society Open

External Reviewer for Canadian Conference on Computational Geometry (CCCG 2023)

Conference Presentations

Accelerating Transformers via Kernel Density Estimation Poster
(ICML) 2023

Weighted MinHash for Inner Product Estimation Poster
(PODS) 2023

Efficient Approximations for Cache-conscious Data Placement Presentation
(PLDI) 2022

Teaching

Section Leader for CSCI-UA 310 Basic Algorithms Spring 2023

Teaching Assistant NYU CS-GY 6763 Algorithmic Machine Learning Fall 2022

Teaching Assistant UT Design and Analysis of Algorithms, H. Mahini Fall 2020-2021

Work Experience

Site Reliability Engineer at Cafebazaar 2021 - 2022

Cafebazaar, part of the Hezardastan Group, houses an internal company named Sotoon, known for its advanced Cloud and AI services. With the use of cutting-edge technologies, Sotoon provides exceptional support and solutions to parent companies within the Hezardastan Holding, including Cafe Bazaar and Divar, two leading entities in Iran.

Serving as a Site Reliability Engineer in Sotoon's SPAAS team, my contributions were key in the development and upkeep of various database and platform services on a Kubernetes-based cloud infrastructure. I was responsible for extending our service offerings with additional databases and ensuring the smooth operation of all existing services.

Skills and Qualities

Theoretical Background:
Proficient in Machine Learning Theory, Neural Networks, Linear Algebra, and Probability.

Technical Skills:
Highly skilled in C/C++, Go, Python, Bash-Scripting, PHP, JavaScript. Experience with PyTorch, TensorFlow, Django, CSS3, HTML5, and git.

Other Attributes:
Innovative, self-driven, and communicative, with ability to work efficiently both independently and in a team.