Ali Gholami Rudi — Curriculum Vitae

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Research Interests Computational geometry; Combinatorial algorithms

Academic Assistant Professor, 2015—

Positions Department of Electrical and Computer Engineering,

Babol Noshirvani University of Technology

Education 2011-2015 Tarbiat Modares University, Tehran

PhD in Computer Engineering

Tarbiat Modares University, Tehran 2008-2010

MSc in Computer Engineering

Sharif University of Technology, Tehran 2004-2008

BSc in Computer Engineering

Honours and Gold Medal in 13th Iranian National Olympiad in Informatics 2003

Awards

Preprints and

Where Were the Birds Staying, Last Week? **Publications** To appear in New Mathematics and Natural Computation, 2020.

Never Absent for Long and Never Far Away. (with F. Golchin).

Proceedings of the 3rd Iranian Conference on Computational Geometry, 2020.

Identifying and Querying Regularly Visited Places.

Scientific Annals of Computer Science, 29(2):185–201, 2019. [Link]

Succinct Enumeration of Distant Vertex Pairs.

Discrete Mathematics, Algorithms and Applications, 11(06):1950076, 2019. [Link]

Enumerating Collinear Points in Higher Dimensions (with R. A. Rufai).

Scientific Annals of Computer Science, 29(1):81–100, 2019. [Link]

Approximate Curve-Restricted Simplification of Polygonal Curves. arXiv:1811.04552 [cs.CG]

Proceedings of the 2nd Iranian Conference on Computational Geometry, 2019.

Approximate Discontinuous Trajectory Hotspots.

arXiv:1901.01763 [cs.CG]

To appear in *Open Computer Science*, 2020.

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Approximate Hotspots of Orthogonal Trajectories.

arXiv:1710.05185 [cs.CG]

Fundamenta Informaticae, 167(4):271–285, 2019. [Link]

Proceedings of the 1st Iranian Conference on Computational Geometry, 37–40, 2018.

Looking for Bird Nests: Identifying Stay Points with Bounded Gaps.

arXiv:1803.07773 [cs.CG]

Proceedings of the 30th Canadian Conference on Computational Geometry, 334–339, 2018.

Time-Windowed Contiguous Hotspot Queries.

arXiv:1711.03795 [cs.CG]

Proceedings of the 1st Iranian Conference on Computational Geometry, 15–18, 2018.

An Improved Lower Bound for General Position Subset Selection.

arXiv:1702.08654 [cs.CG]

Int. J. Computing Science and Mathematics 8(6):562–569, 2017. [Link]

Image Preprocessing with a Parallel Optoelectronic Processor (with S. Jalili).

Computers & Electrical Engineering 46:554–565, 2015. [Link]

RANGI: A Fast List-Colored Graph Motif Finding Algorithm

(with S. Shahrivari, S. Jalili, and Z. R. M. Kashani).

ACM/IEEE Transactions on Computational Biology and Bioinformatics 10(2):504–513, 2013. [Link]

A Parallel Optical Implementation of Arithmetic Operations (with S. Jalili).

Optics & Laser Technology 49:173–182, 2013. [Link]

A New Light-Based Solution to the Hamiltonian Path Problem (with J. S. Sartakhti, and S. Jalili).

Future Generation Computer Systems 29:520–527, 2013. [Link]

Patents

IROST Patent: Electro-optic Parallel Processor (with S. Jalili, and R. R. Dehsorkh).

Iranian Research Organization for Science and Technology, 2017. [Link]