

Parham Moradi

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Employment

Dec. 2023 - Jul. 2024 **Data Developer**, Cube10, Hybrid
Oct. 2021 - Dec. 2023 **Tech Director**, Zamineh Art Platform (Start up), Hybrid, Tehran
Oct. 2020 - Oct. 2021 **Data Scientist**, Zamineh Art Platform (Start up), Hybrid, Tehran

Community Involvement

Oct. 2024 - **Back-end Developer**, 65Square, *HelpUsDefend*, Remote, Canada
Oct. 2024 - **Program Assistant**, Graystone Community Association, Saskatoon
Oct. 2020 - Apr. 2024 **Data Science Fellow**, Center for Complex Networks & Social Data
Nov. 2019 - Oct. 2020 **Research Assistant**, Center for Complex Networks & Social Data

Education

2020 M.Sc., Complex Systems & Non-linear Dynamics Shahid Beheshti University
2017 B.Sc., Physics Sharif University of Technology

Professional Projects

2024 (Oct. -)	Dashlink	A full-stack dashboard application to store links efficiently <i>FastAPI, PostgreSQL, Next.js, Material UI, and Telegram Bot</i>
2024 (Oct.)	Storybook	Co.Hack, Co.Labs' 3rd Annual Hackathon, Saskatoon <i>React, Gemini, Stable Diffusion</i>
2024 (Jan. - Jul.)	Data pipeline	Cube10, Maintenance Karafs' data pipeline legacy code <i>Python, Gitlab, ETL, MongoDB, MS SQL Server, Sentry</i>
2024 (Jan. - Mar.)	Ninja (Crawler)	Cube10, Data mining system for real estate <i>Scrapy, Elasticsearch, ZenRows, Celery</i>

Researches

2022 - 2023 **Flow & Propagation Modeling**
Studied information spread based on network structure within the political context.

2021 - 2022 **Monitoring Twitter Activity on Twelve Iran Presidential Election**
Captured social media activity during the presidential election in Iran & prepared Academic Data to initiate research.

2020 - 2022 **The Art Genome Project**
Supported by Zamineh Content Provider Department, besides art student interns, matching the primary Iran art scene with the terms of The Art Genome Project.

- 2019 - 2020 Implement Social Media User Classification**
Used Botometer to estimate Complete Automation Probability (CAP) distribution on Farsi Twitter through crowdsourcing. Adjusted classification boundaries based on annotations and validated with Kendall's τ .

Academic Projects

- 2019 (Winter) Transformations of Ising Models**
Reviewed & reported the transition point with partition function & thermodynamic calculations based on the 1959 Michael E. Fisher article to obtain magnetic susceptibility.
- 2018 (Winter) Jacobi & Gauss-Seidel to solving Poisson Equation.**
Used the Jacobi & Gauss-Seidel iteration method in MATLAB to solve numerically Poisson Equation in the square lattice by flat density charge.
- 2016 (Spring) Spin-Orbit Coupling in Tetragonal Bismuth Bilayer**
Calculated the band structure of tetragonal bismuth bilayer (TB-Bi), which can be the candidate for topological insulators. Finally, spin-orbit coupling produces a nontrivial topological phase using the tight-binding model approach & the Slater-Koster method.
- 2015 (Spring) Monte Carlo Simulation of The Hubbard & Ising Model on Honeycomb Lattice**
Used Fortran to simulate & briefly study the model and using different computational techniques.

Certifications

- Sept. 2024 Google IT Automation with Python** by Grow with Google on Coursera
- May 2024 Machine Learning** by Stanford University & DeepLearning.AI on Coursera
- Jul. 2024 The Work Readiness Program**
by Radius Community Center For Education and Employment Training
- Jun 2024 Being a Mindful Employee**
by Canadian Center for Occupational Health and Safety

Workshops & Conferences

- 2022 (Summer) Sixth IPM Advanced School on Computing & AI**
by School of computer science, Institute for Research in Fundamental Sciences
- 2020 (Winter) Computational Social Science Workshop**
by Students' Union of Mathematical Sciences Sharif University
- 2019 (Winter) 8TH IPM-HPC Workshop on Multi-Core Systems & Parallel Platforms**
by High-Performance-Computing, Institute for Research in Fundamental Sciences
- 2018 (Summer) School on Theory & Applications of Complex Networks**
by Physics Department, Shahid Beheshti University
- 2017 (Fall) IPM Data Science Day**
by School of Computer Science, Institute for Research in Fundamental Sciences
- 2016 (Winter) 21TH School of Advance Physics Education**
by Institute for Advanced Studies in Basic Sciences

Honors & Awards

- 2017** Ranked in the top 1% of Master National Entrance Gratis Tuition for Higher Education Examination
- 2017** Third Place in Photography at The First Sharif University Art Festival
- 2016** Selected Artist at The Second International Photography Tehran Milad Tower Festival.
- 2012** Ranked in the top 1% of Bachelor National Entrance Gratis Tuition for Higher Education Examination.
- 2010** Third-Ranked Student Funded Scholarship at the Allame Tabatabaei Complex of Culture & Education.
- 2009** Second-Ranked Student Funded Scholarship at the Allame Tabatabaei Complex of Culture & Education.
- 2007** Distinction Eighth Grade Student at Pascal Competition in Waterloo University.

Publications

- [1]** Mohammadi, S., **Moradi, P.**, Trufanov, A. et al. A structural approach to detecting opinion leaders in Twitter by random matrix theory. *Sci Rep* 13, 21788 (2023). <https://doi.org/10.1038/s41598-023-48682-5>
- [2]** Farzam, A., **Moradi, P.**, Mohammadi, S. et al. Opinion manipulation on Farsi Twitter. *Sci Rep* 13, 333 (2023). <https://doi.org/10.1038/s41598-022-26921-5>
- [3]** Mohammadi S, **Moradi P**, Firouzabadi SM, Jafari G (2022) The footprint of campaign strategies in Farsi Twitter: A case for 2021 Iranian presidential election. *PLOS ONE* 17(7): e0270822. <https://doi.org/10.1371/journal.pone.0270822>