

Parham Moradi

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Employment

Feb. 2025 - **Research Assistant**, CS Department, *University of Saskatchewan*
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

Certifications

May 2025 **Mentorship Program** by Saskatchewan Intercultural Association (SIA)
Sept. 2024 **Google IT Automation with Python** by Grow with Google on Coursera

- Crash Course on Python
- Using Python to Interact with the Operating System
- Introduction to Git and GitHub
- Troubleshooting and Debugging Techniques
- Configuration Management and the Cloud
- Automating Real-World Tasks with Python

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
May 2024 **Machine Learning** by Stanford University & DeepLearning.AI on Coursera

- Supervised Machine Learning: Regression and Classification
- Advanced Learning Algorithms
- Unsupervised Learning, Recommenders, Reinforcement Learning

Professional Projects

2024 (Oct. -)	DatingSquare	65Square APIs for client identity and subscription management <i>Python, Django, Web-hook, MySQL, Redis, MinIO</i>
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-Siedel 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 Habard & Ising Model on Honeycomb Lattice	Used Fortran to simulate & briefly study the model and using different computational techniques.

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 Top 1% Ranking** – National Entrance Exam for Higher Education (Master's level) – Awarded Full Tuition Scholarship
- 2017 Third Place, Photography** – First Sharif University Art Festival
- 2016 Selected Artist** – Second International Photography Festival at Tehran's Milad Tower
- 2012 Top 1% Ranking** – National Entrance Exam for Higher Education (Bachelor's level) – Awarded Full Tuition Scholarship
- 2010 Third-Ranked Scholarship Recipient** – Allameh Tabatabaei Complex of Culture & Education
- 2009 Second-Ranked Scholarship Recipient** – Allameh Tabatabaei Complex of Culture & Education
- 2007 Distinction** – Eighth Grade Student, Pascal Competition at the University of Waterloo

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>