Payam Siyari

Sr. Data Scientist - Aurora Innovation, Inc.

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Citizenship:

Iranian (U.S. Permanent Resident)

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https://goo.gl/4dwxgx Google Scholar

AREAS OF INTEREST

Data Science & Machine Learning

Maps & Geospatial Data Science

Natural Language Processing

Graph & Sequence Mining

Ads & Recommender Systems

SKILLS

Python, Java, C++

PyTorch, Tensorflow,
NLTK, NetworkX, SNAP

Hive, Spark

SQLite, PostgreSQL, MySQL

MATLAB, OpenMPI, R

Django, DASH,
Bokeh, D3

EDUCATION

PhD, Computer Science (*Minor in Statistics*) **Aug 2014 - Dec 2018**
College of Computing, Georgia Institute of Technology Atlanta, GA, USA
Thesis: *Optimization-Driven Emergence of Deep Hierarchies w. Applications in Data mining & Evolution*

MSc, Computer Science - Machine Learning (GPA: 4.0/4.0) **Aug 2014 - Aug 2016**
College of Computing, Georgia Institute of Technology Atlanta, GA, USA

MSc, Computer Engineering - Software Eng. (GPA: 19.24/20.00) **Aug 2011 - Aug 2013**
Dpt. of Computer Engineering, Sharif University of Technology Tehran, Iran
Thesis: *Network Topology Inference from Incomplete Data*

BSc, Computer Science (GPA: 18.46/20.00) **Sep 2007 - Aug 2011**
Dpt. of Mathematical Sciences, Shahid Beheshti University Tehran, Iran

PROFESSIONAL EXPERIENCE

Senior Data Scientist **Aurora (San Francisco, CA),** Jan 2021 - Present
- *(Aurora Innovation, Inc. acquired Uber ATG)*

Senior Data Scientist **Uber (San Francisco, CA),** Jan 2020 - Jan 2021
Data Scientist II Oct 2018 - Dec 2019
- *Advanced Technologies Group (ATG) - Full Stack Data Scientist.*
- *Worked on data-driven outlook for expansion of self-driving testing and development.*
- *Devised assessments for occurrence of offline tests in on-road deployment. Details include.*
  - *Data Structures and Algorithms: GeoSpatial joins and indexing on Uber UMM.*
  - *Data Engineering: Advanced SQL, Data pipeline development (Hive, Spark).*
  - *Statistical Analysis: Strategic decision making e.g. minimum miles for deploying servic*
  - *Deep Learning: GeoSpatial representation learning on satellite & road networks.*
  - *Data Visualization, Analytics and Dashboarding: DASH, Bokeh.*
- *@UberEnginnering Showcase:*
  - *Power On: Accelerating Uber's Self-Driving Vehicle Development with Data*
  - *Searchable Ground Truth: Querying Uncommon Scenarios in Self-Driving Development*

Software Engineering Intern **Uber (Pittsburgh, PA),** Aug 2017 - Dec 2017
- *Self-Driving Technology Engineer (Road Analytics).*
- *Project on scalable automated scenario identification in autonomous driving logs.*

Research Assistant **Georgia Tech (Atlanta, GA),** Aug 2014 - Dec 2018
- *Research on Analysis and Modeling of Hierarchical Structures within Big Data.*
- *Applications in Sequential Pattern Mining, Feature Extraction, Compression & Evolutio*

Research Intern **Xerox XRCE (Grenoble, France),** Aug 2015 - Dec 2015
- *Research on MDL-Based Grammatical Inference from Sequential Data.*
- *Applications in Compression & Unsupervised Parsing of Natural Language.*

Research Assistant **Sharif University (Tehran, Iran),** Aug 2011 - Aug 2013
- *Research on Network Inference via NMF and Compressed Sensing.*
- *Research on Epidemic Models over Multilayer Networks.*

iOS Developer **Pichak co. (Tehran, Iran),** Apr 2011 - Aug 2011
- *VPN in Touch: A VPN account management app (client side).*

SELECTED PUBLICATIONS

– **P. Siyari**, B. Dilkina, C. Dovrolis, "Evolution of Hierarchical Structure and Reuse in iGEM Synthetic DNA Sequences", International Conference on Computational Science (**ICCS**), 2019.

– **P. Siyari**, B. Dilkina, C. Dovrolis, "Emergence and Evolution of Hierarchical Structure in Complex Systems", Springer Proc. in Complexity: **Dynamics On and Of Complex Networks** III, 2018.

– **P. Siyari**, M. Galle´, "The Generalized Smallest Grammar Problem", In Proc. of International Conference on Grammatical Inference **(ICGI)**, 2017.

– **P. Siyari**, B. Dilkina, C. Dovrolis, "Lexis: An Optimization Framework for Discovering the Hierarchical Structure of Sequential Data", In Proc. of **ACM SIGKDD**, 2016.

– M. Salehi, R. Sharma, M. Marzolla, M. Magnani, **P. Siyari**, D. Montesi, "Spreading Processes in Multilayer Networks", In **IEEE Trans. Network Science and Engineering**, 2015.

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