

Mohammadzaman Zamani

PERSONAL INFORMATION

Computer Science Department
Stony Brook University
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SUMMARY

- A veteran software developer with +15 years experience in **Python, Java, C/C++** and **Matlab**, with 3 years of **lead data scientist** and 1 year as **social network research scientist**.
- Having strong theoretical computer science background in **algorithm design, data structures** and **graph theory**, with interests in **data and graph mining, NLP, social network analysis** and **computational social science**.

WORK EXPERIENCE

- **Lead Data Scientist** at AT&T Labs, NJ, USA, 2018 – 2020
 - Designed logistic regression and deep learning models for unbalanced datasets of millions of devices for AT&T home services to reduce number of physical dispatches.
 - Automated data gathering and merging from various live data feeds into Hadoop Data Lake.
 - Applied various machine learning algorithms such as classification, regression, clustering, decision tree algorithms, random forests, and time series methods using Keras, Pandas and Scikit-learn.
- **Data Science Consultant** at Broadridge Financial Solutions, NY, USA, 2019
 - Designed and developed a customer to agent matching recommendation system in Keras. This deep learning based model digs into costumers and agents behavioral features as well as their socio-economics and demographics metrics to appropriately assign an agent to each new costumer.
- **Research Assistant** at Human Language Analysis Labs, Stony Brook University, USA , 2015 – present
 - Designed a novel lexical contagiousness measure to evaluate the diffusive power of lexical units over friendship connections.
 - Designed various models to effectively integrate extra-linguistic data into language predictive model for county-wise real estate, health and psychological tasks.
 - Designed a new online learning based method for language predictive models. We introduced a cascaded version of the randomized weighted majority algorithm for online spam detection.
- **Social Network Researcher** at Max Planck Institute for intelligent systems, Germany, 2014
 - Designed an innovative approach for source identification in rumor propagation over social networks. We exploited continuous time diffusion network models by leveraging Poisson Process, and applied Importance Sampling to calculate the Maximum Likelihood Estimate over incomplete cascades.
- **Software developer** at Medopad, Tehran. 2012 – 2013
 - Developed an enterprise medical communication service to connect hospitals, doctors, and patients using DICOM standard.

SKILLS

- Programming Languages: Python, Java, PySpark, Matlab, C/C++, SQL, PHP, JavaScript
- Tools: Eclipse, Vim, NetBeans, Xcode, QtCreator, .NET Visual Studio, Git
- Frameworks: Boost, Keras, CUDA, Symphony, Snap, Weka, MOA, DCMTK.

EDUCATION

- *PhD Candidate in Computer Science* at **Stony Brook University**, USA 2014 – present
- *M.Sc. in Artificial Intelligence* at **Sharif University of Technology**, Tehran 2010 – 2012
- *B.Sc. in Software Engineering* at **Sharif University of Technology**, Tehran 2006 – 2010

PUBLICATIONS

1. **Mohammadzaman Zamani**, H. Andrew Schwartz; '*Contrastive Lexical Diffusion Coefficient: Quantifying the Stickiness of the Ordinary*'; Under review **WWW 2021**.
2. **Mohammadzaman Zamani**, H. Andrew Schwartz, Johannes Eichstaedt, Sharath Chandra Guntuku, adithya Ganesan, Sean Clouston, Sal Giorgi; '*Understanding Weekly COVID-19 Concerns through Dynamic Content-Specific LDA Topic Modeling*'; **NLP+CSS 2020**.
3. Matthew Matero, Akash Idnani, Youngseo Son, Sal Giorgi, Huy Vu, **Mohammadzaman Zamani**, Parth Limbachiya, Sharath Chandra Guntuku, H. Andrew Schwartz; '*Suicide Risk Assessment with Multi-level Dual-Context Language and BERT*'; **CLPsych 2019**.
4. **Mohammadzaman Zamani**, H. Andrew Schwartz, V. Lynn, S. Giorgi & N. Balasubramanian; '*Residualized Factor Adaptation for Community Social Media Prediction Tasks*'; **EMNLP 2018**.
5. **Mohammadzaman Zamani**, A. Buffone, H. Andrew Schwartz; '*Predicting User Trustfulness from Facebook Language*'; **CLPsych 2018**,
6. **Mohammadzaman Zamani**, H. Andrew Schwartz; '*Using Twitter Language to Predict Real Estate Market*'; **EACL 2017**,
7. **Mohammadzaman Zamani**, Hamid Beigy, Amirreza Shaban; '*Cascading Randomized Weighted Majority Algorithm, A New Online Ensemble Learning Algorithms*'; **Intelligent Data Analysis 2016**,
8. Zhong Sichen, Lu Zhao, Yan Liang, **Mohammadzaman Zamani**, Rob Patro, Rezaul Chowdhury, Esther M. Arkin, Joseph S. B. Mitchell, & Steven Skiena; '*Optimizing Read Reversal for Sequence Compression*'; **WABI 2015**,
9. Mehrdad Farajtabar, Manuel Gomez-Rodriguez, **Mohammadzaman Zamani**, Nan Du, Hongyuan Zha, Le Song; '*Back to the Past: Source Identification in Diffusion Networks from Partially Observed Cascades*'; **AISTATS 2015**,

HONORS & AWARDS

- Full **graduate scholarship** and full **tuition scholarship**, 2014
- **Research internship scholarship**, Max Planck Institute for intelligent systems, Germany, 2014
- **MPI scholarship**, ETH/MPI summer school on learning systems, Switzerland, 2014
- Ranked **2nd** student of MSc program (**GPA 19/20**), Sharif University of Technology, 2012
- Recipient of National Elites Foundation (**INEF**) Scholarship, 2006 to 2010.
- Ranked **Top 0.1%** in the national university entrance exam (**172nd/200,000+** students), 2006
- Recipient of **Silver medal** in National Informatics **Olympiad**¹, 2005

¹At the nation-wide stage of the competition. The competition consists of both CS fundamentals and coding.