Adrin Jalali

Curriculum Vitae

Berlin, Germany
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github/adrinjalali

Experience

2016-present **Ancud IT**, *Data Science Department*, Berlin, Germany.
- Machine Learning (scikit-learn, tensorflow, GPy, etc.)
- NLU/NLP (intent and entity recognition, conversation context, etc.)
- NoSQL (Cassandra, Elasticsearch, Solr)
- Machine Learning DevOps (PipelineIO: kubernetes, weave-scope, AWS, MS-Azure, docker, etc.)

2016 **MisterSpex GmbH**, *Business Intelligence Department*, Berlin, Germany.
- TV-ad attribution model using Gaussian Processes - **Python**
- Dynamic ordering of products on landing pages based on several KPIs - **R, TSQL**
- Improving Google AdWords ad placement and bidding strategies - **Python**

2012-Present **Max Planck Institute for Informatics**, *Computational Biology and Applied Algorithmics Department*, Saarbrücken, Germany.
- Interpretable Sparse methods for cancer associations using an ensemble of sparse support vector machines (SVMs) - **Python**

2011-2012 **British Columbia Cancer Research Center**, *Terry Fox Laboratory*, Vancouver, Canada.
- Automated flow cytometry data analysis and visualization using dynamic programming, clustering, graph algorithms, and SVMs - **C++, R**

2009–2011 **Tosan Intelligent Data Miners**, *R&D Department*, Tehran, Iran.
- Fraud detection in banks, *Project Manager* - **C++, Java, Oracle, Microsoft BI**
  - Behavioral clustering of bank employees in time to detect major behavioral changes as anomalies.
  - Behavioral clustering of customers according to their debit card transactions in time to detect changes as potential fraud.
- Operational intelligence, *Project Manager* - **C++, Oracle, MATLAB, Java**
  - Predict the terminal type of the next transaction of the customers using their transaction history.
  - Soft cluster customers according to their fuzzified transaction times and detect abnormal changes in cluster membership values.
  - Build a graph model to predict geographical location of terminals using customers' transaction history.

2008 **Orado Group**, Tehran, Iran.
Programmer in an educational/social network targeting Iranian secondary and high school students - **C#, T-SQL**

2006–2007 **Fidofa Software Group**, Tehran, Iran.

- Automatic trading system in futures stock market, *Programmer* - **Matlab, C#**
  - Implementation of Markowitz modern portfolio theory.
  - Implementation of GARCH indicator for stock market price.
  - Optimize parameters of company's existing trading systems using a genetic algorithm.

2006 **Sourena Software Group**, Tehran, Iran.
Programmer in a Persian text to speech project - **C#**

2005 **Tarrah Sarv System**, Tehran, Iran.
Programmer in a system handling all personnel and factory processes of a chicken farm - **Delphi, T-SQL**

Other Experience

2009 **University of Tehran**, *Mining Department*, Tehran, Iran.
Predicting Compressional and Shear Wave Velocities in dam sites in south west of Iran having sparse samples taken from the site before construction of dams using an adaptive Neuro-Fuzzy Inference System model - **Matlab**

2006 **University of Tehran**, *Management Faculty*, Tehran, Iran.
Semi-dynamic recommendation system for semi-dynamic retail store/ad-based websites using singular value decomposition and a genetic algorithm - **C++**

2005 **Tehran Polytechnic**, *Computer Engineering Department*, Tehran, Iran.
Power efficient semi-random message passing and routing algorithm for ad-hoc mobile sensor networks - **C++**

2002–2005 **Tehran Polytechnic**, *Rescue Simulation League, Robotics Lab*, Tehran, Iran.
7th place, world cup 2002 Italy
5th place, world cup 2005 Japan
Fire brigades and police forces - **C++**

- Clustering of the buildings of the simulated world using self organizing map.
- Program a strategy accordingly to find the best order of the buildings to be extinguished by fire brigades.

Teaching Positions

2011 **Lecturer**, *Introduction to Programming*, Department of Fundamental Sciences, University of Tehran, Tehran, Iran.

2006 **Teaching Assistant**, *Introduction to Graphics Programming in C*, Department of Mechanical, Civil, and Texture Engineering, Tehran Polytechnic, Tehran, Iran.

2006 **Teaching Assistant**, *Data Structures and Algorithms*, Department of Math and Computer Science, Tehran Polytechnic, Tehran, Iran.

2005 **Teaching Assistant**, *Compilers*, Department of Math and Computer Science, Tehran Polytechnic, Tehran, Iran.

2004 **Teaching Assistant**, *Micro Processors*, Department of Math and Computer Science, Tehran Polytechnic, Tehran, Iran.

Education

2012–Present **PhD (cont.) in Computer Science/Bioinformatics**, *Max Planck Institute for Informatics, Computational Biology and Applied Algorithmics Department*, Saarbrücken, Germany,
Supervisors: Dr. Nico Pfeifer, Prof. Dr. Dr. Thomas Lengauer,
Dissertation Topic: Machine Learning in Cancer Diagnosis,
Degree anticipated: July 2016.

2011–2012 **PhD in Bioinformatics**, *University of British Columbia, British Columbia Cancer Research Center, Terry Fox Laboratory*, Vancouver, Canada,
Supervisor: Dr. Ryan Brinkman,
Topic: Automated analysis of flow-cytometry data.

2006–2009 **MSc in Computer Science**, *University of Tehran, School of Mathematics, Statistics, and Computer Science*, Tehran, Iran,
Supervisor: Dr. Abbas Nowzari-Dalini,
Thesis Topic: Finding DNA Motifs Using Bidirectional Recurrent Neural Networks,
GPA: 18.42/20.

2002–2006 **BSc in Computer Science**, *Tehran Polytechnic, Department of Mathematics, and Computer Science*, Tehran, Iran,
Thesis Topic: Design and Implementation of a Genetic Algorithm to Solve Time Table of a School,
GPA: 15.98/20.

Service

2015 **Chemistry, Physics, and Technology Section Representative**, *PhDnet steering group*, Max Planck Society, Germany.

2012 **Bioinformatics Representative**, *College for Interdisciplinary Studies Graduate Student Society*, University of British Columbia, Vancouver, Canada.

2012 **"Bioinformatics" and "British Columbia Cancer Agency Graduate Student and Post Doctoral Fellow Society" representative**, *Graduate Student Society*, University of British Columbia, Vancouver, Canada.

Computer Skills

C, C++, Python, Linux

C#, Java, R, Matlab, T-SQL, PL/SQL, Elasticsearch, Cassandra

Oracle, MySql, AWS, MS-Azure, Kubernetes

Languages

Persian **Native**

English **Fluent**

German **Intermediate (∼B2)**

Publications

1. Handl L, Jalali A, Scherer M, Pfeifer N., *Partially blind domain adaptation for age prediction from DNA methylation data*, arXiv preprint arXiv:1612.06650, 2016.
2. Jalali A., and Pfeifer N., *Interpretable per Case Weighted Ensemble Method for Cancer Associations*, BMC Genomics, volume 17, no. 1, 2016.
3. Courtot M., Meskas J., Diehl A. D., Droumeva R., Gottardo R., Jalali A., Taghiyar M.J., *flowCL: ontology-based cell population labelling in flow cytometry*, Bioinformatics 31, no. 8 (2015): 1337-1339.
4. Jalali A., and Pfeifer N., *Interpretable per Case Weighted Ensemble Method for Cancer Associations*, Algorithms in Bioinformatics, pp. 352-353. Springer Berlin Heidelberg, 2014.
5. O'Neill K.*, Jalali A.*, Aghaeepour N.*, Hoos H.H., and Brinkman R.R., *Enhanced flowType/RchyOptimyx: A Bioconductor pipeline for discovery in high-dimensional cytometry data*, Bioinformatics (2014), doi: 10.1093/bioinformatics/btt770.
6. Jalali A.*, Aghaeepour N.*, O'Neill K., Chattopadhyay P.K., Roederer M., Hoos H.H., Brinkman R.R., *RchyOptimyx: cellular hierarchy optimization for flow cytometry*, Cytometry Part A 81, no. 12 (2012): 1022-1030.
7. Aghaeepour N., Chattopadhyay P.K., Ganesan A., O'Neill K., Zare H., Jalali A., Hoos H.H., Roederer M., and Brinkman R.R., *Early Immunologic Correlates of HIV Protection can be Identied from Computational Analysis of Complex Multivariate T-cell Flow Cytometry Assays*, Bioinformatics, 2012: 28(7):10091016.
8. Rezaei F.*, Jalali A.*, Memarian H., *Estimation of Compressional and Shear Wave Velocities using Adaptive Neuro-Fuzzy Inference System, in some of dam sites in south west of Iran*, Journal of the Earth, Tehran, Iran, 2009.
9. Behsaz B., Jalali A., Janzadeh H., Jouyandeh M.R.., Molazem F., Rahimi A., Salehi A., and Tavakoli Ghinani M., *Team Description of S.O.S. 2005*, Proceedings CD RoboCup 2005, Osaka, Japan, 2005.
10. Tashakori M., Jalali A., Jooyandeh M.R., Gholami A., Behzadian A., Ghasemloo K., Esfahbod B., *Rayan Team Strategy Description*, Proceedings CD RoboCup 2004, Lisboa, Portugal, 2004.
11. Shiri M.E., Jalali A., Jooyandeh M.R., Roshandel Tavana R., Behzadi M., *AUTRescue Team Strategy Description*, Proceedings CD RoboCup 2003, Springer-Verlag, Padova, Italy, 2003.

* co-authors contributed equally