

2901 Middlefield Rd, Apt 9
Palo Alto, CA, USA 94306
Phone: +1 (541) 602-8394

Email: [jvd.azm \[AT\] gmail.com](mailto:jvd.azm@gmail.com)
<http://javad-azimi.com>

Education

School of Electrical Engineering and Computer Science, Oregon State University *PhD in Computer Science, Major in Artificial Intelligence (Machine Learning)*
Corvallis, OR **September 2012**

Thesis: Budgeted Optimization with Constrained Experiment
Supervisors: Dr. Xiaoli Fern and Dr. Alan Fern

Computer Engineering Department, Iran University of Science and Technology *Master of Computer Engineering, Major in Artificial Intelligence*
Tehran, Iran **June 2007**

Thesis: Evaluating Diversity in Clustering Ensembles

Computer Engineering Department, Shahed University *Bachelor of Science in computer Engineering*
Tehran, Iran **September 2004**

Thesis: Persian Optical Character Recognition Using Fuzzy Methods
Supervised by Dr.A. Mahabadi

Professional Experience

Microsoft **Senior Applied Scientist**
Moffet Tower, Sunnyvale, California March 2013 - Present

Researching and developing various large scale machine learning algorithms (using C#, C++ and Python) to optimize the Ads selection system in Bing. The proposed algorithms had significant overall RPM impact ($\approx 3\%$) on Bing revenue. A patent and a few publications in top tier conferences have been published too (Papers p_{19}, p_{18}, p_{17} and Patent pt_2 which are listed below).

InsightsOne Inc **Data Scientist**
2953 Bunker Hill Lane, Santa Clara, California September 2012 - March 2013

Research on optimizing the InsightsOne recommendation and targeting engine applied in different Big Data applications. A distributed Bayesian optimization tools in Hadoop has been developed (using Perl) which improved the learning engine performance significantly in some applications ($\approx 10\%$).

Yahoo! Labs **Summer Intern**
4401 Great America, Santa Clara, CA, US June 2011 - September 2011

Research on the impact of visual appearance on user response in online display advertising over the largest Ads exchange dataset. I was able to develop some important visual features (using MATLAB®) which could either promote or hurt the performance of display ads. These features were then adopted in Yahoo's click prediction system and were able to increase the prediction accuracy considerably. A patent and a few publications in top tier conferences have been published too (Papers p_{10}, p_{13}, p_{14} and Patent pt_1).

BIOTRONIK Inc **Summer Intern**
6024 John Road, Lake Oswego, Portland, OR, US June 2008 - September 2008

Research on statistical unsupervised anomaly detection in large scale data sets. I was able to develop an algorithm (using Visual Basic, R and Statistica) which recognized anomaly samples in highly imbalanced data set. The proposed approach was used to distinguish the defect pacemaker devices in production line.

Graduate Courses

- Theory of Statistics 1,2
- Bayesian Statistics
- Applied Multi Variate Analysis
- Numerical Linear Algebra
- Machine Learning
- Neural Networks
- Advanced Computer Architecture
- Computer Vision

Selected Publications

- [p_{20}] Javad Azimi, Xiaoli Fern, Alan Fern, "Budgeted Optimization with Constrained Experiments", in JAIR 2016.
- [p_{19}] Javad Azimi, Adnan Alam, Ruofei Zhang, "Ads Keyword Rewriting Using Search Engine Results", in WWW 2015.

- [p₁₈] Pengqi Liu, Javad Azimi, Ruofei Zhang, “Contextual Query Intent Extraction for Paid Search Selection”, in WWW 2015.
- [p₁₇] Pengqi Liu, Javad Azimi, Ruofei Zhang, “Automatic keywords generation for contextual advertising”, in WWW 2014.
- [p₁₆] Sicheng Xiong, Javad Azimi, Xiaoli Fern, “Active Learning of Constraints for Semi-Supervised Clustering”, IEEE Transactions on Knowledge and Data Engineering (TKDE), 2014.
- [p₁₅] Ali Jalali, Javad Azimi, Xiaoli Fern, “Exploration vs Exploitation in Bayesian Optimization”, ECML 2013.
- [p₁₄] Javad Azimi, Bruce Zhang, Yang Zhou, Vidhya Navalpakkam, Jianchang Mao, Xiaoli Fern, “Visual Appearance of Display Ads and Its Effect on Click Through Rate”, in CIKM 2012.
- [p₁₃] Haibin Cheng, Roelof Zwol, Javad Azimi, Eren Manavoglu, Ruofei Zhang, Yang Zhou, Vidhya Navalpakkam, “Multimedia Features for Click Prediction of New Ads in Display Advertising”, in KDD 2012.
- [p₁₂] Javad Azimi, Ali Jalali, Xiaoli Fern, “Hybrid Batch Bayesian Optimization”, in ICML 2012.
- [p₁₁] Javad Azimi, Alan Fern, Xiaoli Fern, Glencora Borradaile, Brent Heeringa, “Batch Active Learning via Coordinated Matching”, in ICML 2012.
- [p₁₀] Javad Azimi, Bruce Zhang, Yang Zhou, Vidhya Navalpakkam, Jianchang Mao, Xiaoli Fern, “The Impact of Visual Appearance on User Response in Online Display Advertising”, in WWW 2012.
- [p₉] Javad Azimi, Ali Jalali, Xiaoli Fern, “Dynamic Batch Bayesian Optimization”, in NIPS 2011, Workshop in Bayesian optimization, experimental design and bandits: Theory and applications.
- [p₈] Javad Azimi, Alan Fern, Xiaoli Fern, “Budgeted Optimization with Concurrent Stochastic-Duration Experiments”, in NIPS 2011, (**Spotlight**).
- [p₇] Javad Azimi, Alan Fern, Xiaoli Fern, Active Function Optimization with Parallel Stochastic-Duration Experiments, in ICML 2011, Workshop in Combining Learning Strategies to Reduce Label Cost.
- [p₆] Javad Azimi, Alan Fern, Xiaoli Fern, “Batch Bayesian Optimization via Simulation Matching”, in NIPS 2010.
- [p₅] Javad Azimi, X.Fern, A.Fern, E.Burrows, F.Chaplen, Y.Fan, H.Liu, J.Jaio, R.Schaller, “Myopic Policies for Budgeted Optimization with Constrained Experiments”, in AAAI 2010.
- [p₄] Javad Azimi, Xiaoli Fern, “Adaptive Cluster Ensemble Selection”, in IJCAI 2009.
- [p₃] Javad Azimi, Monireh Abdoos, Morteza Analoui, “A New Efficient Approach in Clustering Ensembles”, in IDEAL 2007.
- [p₂] Alireza Saberi, Javad Azimi, Behrouz Minaei, “Applying Data Mining Techniques for Scam Detection”, in CSICC 2007.
- [p₁] Javad Azimi, Mohammad Mohammadi, Morteza Analoui, “Clustering Ensembles Using Genetic Algorithm”, in IEEE CAMPS 2006.

Patent

- [pt₂] Javad Azimi, Ruofei Zhang And Adnan Alam, “Rewriting Keyword Information Using Search Engine Results”.
- [pt₁] Javad Azimi, Ruofei Zhang, Yang Zhou, Vidhya Navalpakkam, Eren Manavoglu, Roelof van Zwol and Haibin Cheng, “Multimedia Features for Click Prediction of New Ads in Display Advertising”.

Professional Services

- **Organizer:** NIPS 2012 Workshop on Bayesian Optimization and Decision Making with Roman Garnett, Frank Hutter and Shakir Mohamed. Details at <http://javad-azimi.com/nips2012ws>
 - **PC Member:** AAAI 2013, AAAI 2014, SDM 2013, NIPS 2014, NIPS 2015
 - **Reviewer:** IEEE Transactions on Neural Networks and Learning Systems, Machine Learning Journal, CIKM 2014
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Teaching Experience

C, C++, Java Programming
Electrical Engineering & Computer Science
Department
Oregon State University,
Corvallis, OR

Teaching Assistant
Fall 2007, Winter 2008, Spring 2008

Professional Skills

- Proficient in **C#**, Python, MATLAB®
- Familiar with Visual Basic, Perl, Bash, C, C++, Java, R, Hadoop, HTML, Java Script

References

Available upon request.