Aidin Hassanzadeh

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Summary

Machine Learning Expert focused on Data Science applications ranging from sensory imaging to business data processes. For more than five years, I have been actively working with the state of art machine learning algorithms, deep neural networks, dealing with the complexities in large scale high dimensional data. I am deeply passionate about mathematics, technology and experienced with unsupervised, supervised, deep learning and parallel computing. With acquired skills, I am able to leverage a broad range of applied math and statistics with visualization and exploratory data analysis.

Current position

Research Scholar, Laboratory for Image Video Engineering (LIVE), University of Texas at Austin, USA
PhD Candidate, Machine Vision and Pattern Recognition laboratory (MVPR), School of Engineering Science, Lappeenranta University of Technology, Finland
Expected Graduation: Nov.2018

Research Interests

Machine Learning, Deep Neural Networks, Unsupervised Classification, Big Data, NLP, Remote Sensing, Hyperspectral Image Analysis

Education

2018	The Data Analysis and Visualization Boot Camp, University of Texas at Austin
2014	MSc Computer Science (Computer Science), Örebro University, Sweden (Grade A/A)
2013	Visiting Student in Algorithms and Machine Learning, University of Helsinki, Finland
2002	BSc in Electrical Engineering, Tabriz University, Iran

Research Experience

2014	*M.S. Thesis*, Mobile Robot Wind Mapping, Örebro University, Sweden
2002	*B.S. Thesis*, Digital Subscriber Line, Tabriz University, Iran
1999	*B.S. Project*, Robotics Competition, Tabriz University, Iran

Publications

2017	Hassanzadeh, Aidin and Kaarna, Arto and Kauranne, Tuomo, "Sequential Spectral Clustering of Hyperspectral Remote Sensing Image over Bipartite Graph", Journal of Applied Soft Computing, *ASC*
2017	Hassanzadeh, Aidin and Kaarna, Arto and Kauranne, Tuomo, "Unsupervised Multi-Manifold Classification of Hyperspectral Remote Sensing Images with Contractive Autoencoder", Sandinavian Conference on Image Analysis 2017, *SCIA 2017*

2016	Hassanzadeh, Aidin and Kaarna, Arto and Kauranne, Tuomo, "Outlier Robust Geodesic K-means Algorithm for High Dimensional Data", Structural, Syntactic, and Statistical Pattern Recognition: Joint IAPR International Workshop, S+SSPR 2016, Mérida, Mexico, November 29 - December 2, 2016, Proceedings, *S-SSPR 2016*
2016	Hassanzadeh, Aidin and Kauranne, Tuomo and Kaarna, Arto, A multi-manifold clustering algorithm for hyperspectral remote sensing imagery", 2016 IEEE International Geoscience and Remote Sensing Symposium (IGARSS), *IGARSS 2016*
2014	Hassanzadeh, Aidin, Mobile Robot Wind Mapping", Master thesis *Örebro University*

Experience History

2014-18	PhD Studies, Lappeenranta University of Technology
2012-14	Master Studies, Orebro University
2010-12	Control Engineer, DSKI Joint Venture
2009-10	Master Studies, Orebro University
2007-09	Instrument/Control Engineer, Daelim Ind. Co.
2002-07	Instrument/Control Engineer, Elmatco Eng. Co.

Teaching

2017	Teacher Assistant, Computer Vision, Lappeenranta University of Technology, Finland
2016	Teacher Assistant, Advanced Data Analysis and Machine Learning, Lappeenranta University of Technology, Finland
2016	Master thesis supervision, Lappeenranta University of Technology, Finland

Awards

2017	Research Visit Grant, Lappeenrannan Teknillisen Yliopiston Tukisäätiö
2015	Best Poster Presentation in Scientific Session (LUT DS Conference)
2015	Graduate School Grant, Lappeenranta University of Technology
2014	MSc Graduation with Distinction

Skills

Programming: Python, C, C++, Matlab, R, Scala, JavaScript, VBA
Frameworks: Theano, TensorFlow, Keras, SciKit-Learn, OpenCV, Pillow, NLTK, TextBlob, OpenNI
Data Analytics: MySQL, MongoDB, Hadoop, Social Media Mining, Excel
Visualization/Reporting: Bootstrap, Dashboarding, Pandas, Matplotlib, Searborn, ArcGIS, Folium, Tableau, HTML/CSS/JS, Excel
APIs: Google, AWS (EC2, SageMaker, Rekognition and Product Advertising API), Twitter, Census, Yelp API, Open Weather, Zillow, Great Schools, Quandl. Mics: Bash scripting, Vim, Emacs, Latex, Git, SVN, Conda, Docker, MS Office

References

Available upon request.