Vahid Mohammadi Safarzadeh

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EDUCATION

Master in Artificial Intelligence 2010-09 - 2013-03

Shahid Chamran University - Ahvaz, Iran

GPA: 3.81/4.0 (17.53/20)

Term of Admission: Talented Student

Related Coursework: Statistical Pattern Recognition:19/20, Machine Learning:17.95/20, Robotics:19/20, Advanced Topics in AI:16.5/20, Fuzzy Systems:15/20 , and Advanced (Distributed) Operating System:16/20.

Thesis: Automated Localization of Blood Vessels In Retinal Images

Bachelor in Computer Engineering – Software 2006-09 - 2010-09

Shahid Chamran University - Ahvaz, Iran

GPA: 3.55/4.00 (16.42/20) Graduated in Top 10% of Class

Related Coursework: Parallel Programming:20/20, Differential Equations: 17.25/20, Artificial Intelligence: 17.8/20, Methods of Numerical Analysis: 19.2/20, Computer Graphics:18.6/20, Computer Simulation:17.4/20, Advanced Algorithms:20/20, Principle of Compiler Design: 20/20

Project: Ontology Alignment in Semantic Web With Neural Networks

RESEARCH

Publications

- Mohammadi Safarzadeh, V, Jafarzadeh, P., 2020, *"Offline Persian Handwriting Recognition with CNN and RNN-CTC"*, 25th International Computer Conference Computer Society of Iran, Vol 1 (IEEE).
- Mohammadi Safarzadeh, V. , Joukar, M., 2018, "*A report on the analysis of the effects of parameters of a HPC system on the performance and speed of computations of reservoir simulators prepared at National Iranian South Oil Company.*", Report No. 9550. (in Persian)
- Mohammadi Saffarzadeh, V., Osareh, A., Shadgar, B., 2014, *"Vessel Segmentation in Retinal Images Using Multi-scale Line Operator and K-Means Clustering"*, Journal of Medical Signals and Sensors, Vol 4, Issue 2, pp. 122-129 (Peer-Reviewed).
- Jafarzadeh, P., Mohammadi saffarzadeh, V., Mazloom, M., 2014, *"A Hybrid Approach Using Particle Swarm Optimization and Parallel Simulated Annealing: A case study for n-queen Problem"*, International Journal of Computer and Electrical Engineering, Vol. 6, No.3, pp. 231-235 (Peer-Reviewed).
- Mohammadi Saffarzadeh, V. , Jafarzadeh, P. , Mazloom, 2010, "A *Hybrid Approach*

Using Particle Swarm Optimization and Simulated Annealing for N-queen Problem", International Journal of Mathematical, Computational, Physical, Electrical and Computer Engineering, Vol:4, No:7, pp. 974-978.

- Rezae Arshad, R., Sayyad, G., Mazloom, M., Mohammadi Sffarzadeh, V., 2010, "E*stimation Of soil saturated hydraulic conductivity by MLP Neural Network"*, The First International Conference On Plant, Water, Soil & Weather Modeling, Kerman, Iran. (in Persian)

SKILLS

Programming Languages: C/C++, Java, Python, C#, PHP, MySQL, Shell

Tools (Packages): OpenCV, Matlab (Octave), R, PyTorch/TensorFlow, Scikit-Learn

Operating Systems: Linux, MS Windows

RESEARCH INTERESTS

- Pattern Recognition, Machine Learning, Deep Learning
- Mathematical Optimisation
- (Medical) Image Processing and Machine Vision
- Parallel Computing and High Performance Computing (HPC)
- Operating Systems

WORK EXPERIENCE

Lecturer (undergraduate teaching) 2014-09 - Present

Shahid Chamran University, Ahvaz, Iran

- Taught several classes of more than 20 students courses, including C, Java, Object-Oriented concepts, Artificial Intelligence, Computational Intelligence, and Operating System (lab).
- Maintained weekly office hours and problem-solving sessions.
- Graded projects and exams.
- Supervised undergraduate projects in Machine Learning.

Researcher and Developer 2019-09 - 2020-04

Takin Pardazesh Khayyam Company (startup Company), Ahvaz, Iran

- Wrote research papers regarding the application of Deep Learning approaches in handwriting recognition.
- Implemented applications in C++/C#/Python.

Projects:

- Persian/Arabic handwriting text recognition from scanned documents using Deep Learning

methods.

- Retinal image analysis using Deep Learning approaches.
- Implementing an application for retrieving information from a multi-shot downhole tool (used in Oil&Gas wells) in collaboration with Nasim Karvarzi Iranian startup company.

Computer Engineer 2014-01 - 2019-09

National Iranian South Oil Company, Ahvaz, Khouzestan

- Implemented and administrated a High-Performance Computing system for speeding up petroleum reservoir simulators such as ECLIPSE Industry Reference Reservoir Simulator.
- Designed and implemented several computer applications for facilitating IT services throughout the company.
- Taught, through seminars, the technical concepts and tools of Big Data and Machine Learning and their applications in Oil and Gas industry.
- Wrote reports regarding the application of Big Data, Data Mining, Cloud Computing and High-Performance in Oil and Gas Industry.

Volunteer Experience 2014-01 - 2015-01

After graduation, I worked about 1.5 years on implementing and administrating a Linux-based HPC system at Shahid Chamran University. During this time, I helped professors and students to run and analysis their programs on the system as well as maintaining the system itself.

WORKSHOP AND TRAINING

- "Application of Data Mining and Big Data in Oil&Gas Industry", National Iranian South Oil Company, 2019.
- "How to Use Shahid Chamran University High-Performance Computing Centre", Shahid Chamran University of Ahvaz, 2015.

LANGUAGES

English: Advanced **French**: Beginner **Persian**: Native

HOBBIES

Reading books (classic, scientific, philosophical), playing football and swimming, watching movies (Sci-Fi mostly), travelling.