<div align="center">**Curriculum Vitae**
February 2024</div>

Personal Data:

Name: **Asadollah Shahbahrami**
Marital status: Married
Previous work address: (2021, 2022, till July 2023)
Department of Computer Science, Faculty of Science and Engineering,
University of Groningen, The Netherlands.
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Occupation:

Aug/2023—Now: Department of Computer Engineering, University of Guilan, Rasht, Iran
2021 – July/2023: Lecturer at the Department of Computer Science, University of Groningen, The Netherlands
2010 - 2020: Department of Computer Engineering, University of Guilan, Rasht, Iran.
2008 - 2010: Postdoc at Computer Engineering Lab. Technical University of Delft, The Netherlands
1997 - 2003: Instructor at the Department of Electrical Engineering, University of Guilan, Iran.

Education:

2004-2008: Ph.D. degree, Computer engineering, on September 15, 2008, Delft University of Technology, Thesis Title: "Avoiding Conversion and Rearrangement Overhead in SIMD Architectures."

1993-1996: MSc degree, Computer engineering- Artificial Intelligence, in August 1996, Shiraz University, Shiraz, Iran, Thesis Title: "Medical Images Segmentation using Neural Networks."

1988-1993: BSc degree, Computer engineering, in May 1993, Iran University of Science & Technology, Thesis Title: "Design and Implementation of a General Data Acquisition Board"

Research Interests:
- Computer Vision, Digital image processing, ML, Big Data Processing, Application of AI, Object Detection and Tracking, High-performance Computing, Parallel Programming,

Teaching Experience at the University of Groningen in 2021, 2022, and 2023:

I have been teaching as a tutor and as a lecturer for the following courses at Bachelor and Master levels:
- Advanced parallel programming (GPU, CUDA)
- Parallel computing (Pthreads, MPI, OpenMP, SIMD)
- Computer architecture
- Programming projects
- Introduction to computer system
- Operating system

Teaching Experience at University of Guilan (Rasht, Iran) from 2010 until 2020:
I have taught the following courses **at the Bachelor level in Computer Engineering** and Electrical Engineering.
- Fundamentals of Computer Vision
- Fundamentals of Micro-Computers/Microcontrollers
- Artificial Intelligence, Data Base Design, Data Mining
- Digital Design, Computer Architecture Design
- Computer programming C, C++, C#, Python
- System Analysis, Software Engineering,
- Data Structures,
- Fundamental of Multimedia Systems,
- Technical and Scientific Writing and Speech
- Information Retrieval

I have also taught the following courses at the Master's level.
- Parallel Processing/parallel programming/multi-threading
- Advanced Computer Architecture
- Advanced Digital Processing
- Multimedia Data Compression
- Information Retrieval
- Big Data Analysis

Teaching Assistant at TU Delft (Delft, The Netherlands):

- September/2008 — January/2009: Teaching assistant for the subjects "Modern Computer Architecture" and "Embedded Computer Architecture" for the first year of the M.Sc. in Computer Engineering at Delft University of Technology.
- March/2005 — July/2005 and March/2008 — July/2008: Teaching assistant for the subject "Computer Architectures - Special Topics" for the first year of the M.Sc. in Computer Engineering at Delft University of Technology.

Ph.D Internship Program:

- Three months (Oct./Nov./Dec./2007) in the ARM Company in Cambridge in the UK. The project was related to the vectorization of wireless protocols using the Ardbeg architecture.

HiPEAC Summer School

- International Summer School on Advanced Computer Architecture and Compilation for Embedded Systems (ACACES). One week ofsummer school in July/2008

Submitted Grant Proposal

- NWO Open Competition Domain Science – M-2, 2023-2024,
  "Tackling Depression Diagnosis Challenges with Multimodal Data and AI"
  This current proposal is a joint work between the computer engineering department of TUDelft, Georgi Gaydadevii and Prof. dr. P. (Peter) de Jonge from the Faculty of Behavioral and Social Sciences, https://www.rug.nl/staff/peter.de.jonge/ from Groningen University.

Previously submitted proposal:

"ARCHitectural enhancements for Image and VIdeo Retrieval", NWO,
https://www.nwo.nl/projecten/612064509-0 , 2005

PhD Students

- Bahare Ghari, (2023 – expected 2027) Main Supervisor
  Title: Object Detection and Reidentification for Autonomous Vehicles
- Nima Esmi Rudbardeh (2022- expected 2026, daily supervisor (Groningen University)
  Title: AI-Based Mental Health Scrutiny
- Maedeh Daryanavard (2023- expected 2027), daily supervisor (Groningen University)
  Title: Semantic Image Aesthetic Quality Assessment
- Farnaz Hoseini, (2014 – 2018), Main Supervisor, Guilan University
  Title: Medial Image Segmentation using CNN
- Hashen Mirbahari (2020- expected 2025) Main Supervisor, Guilan University
  Title: Intelligent environmental monitoring based on IoT
- Sohib Hadi, (2020- expected 2025) Main Supervisor, Azad University, Iran
  Title: Video Surveillance Compression using CNN

Publication:
Ph.D Thesis: "Avoiding Conversion and Rearrangement Overhead in SIMD Architectures",
September, 2008 ISBN:978-90-807957-9-2

Journal:
- Akbar Telikani, Nima Esmi, Shiva Soleymanpour, **Asadollah Shahbahrami,** Jun Shen, Georgi Gaydadjiev, and Reza Hassanpour, "A cost-sensitive machine learning model with multi-task learning for intrusion detection in IoT", Accepted in IEEE Transactions on Industrial Informatics (August 2023)
- A. Telikani, **A. Shahbahrami**, J. Shen, G. Gaydadjiev, and J. C. W. Lin, "An edge computing-aided parallel evolutionary privacy-preserving algorithm for big IoT data" Internet of Things, Engineering Cyber Physical Human Systems Journal (accepted on 22/ May/2023)
- A. R. Akoushideh, A. Ranjkash, **A. Shahbahrami**, "PESTD: A Large-scale Persian-English Scene Text Dataset" Accepted in Feb. 2023 in Multimedia Tools and Applications
- N. Esmi, Y. Golshan, S. Asadi, **A. Shahbahrami** and G. Gaydadjiev, "A fuzzy fine-tuned model for COVID-19 diagnosis" Computers in Biology and Medicine, Vol.153, Feb. 2023, https://doi.org/10.1016/j.compbiomed.2022.106483.
- A Akoushideh, SMF Rasoulnejad, **A Shahbahrami**, Text localization in digital images using a hybrid method, Multimedia Tools and Applications, 2022, 1-20
- A. Telikani, **A. Shahbahrami** and A. H. Gandomi, High-performance implementation of evolutionary privacy-preserving algorithm for big data using GPU platform, Information Sciences, Vol. 579, pp:251-265, Nov. 2021.
- S Khazaee, A Tourani, S Soroori, **A Shahbahrami**, CY Suen, An Accurate Real-Time License Plate Detection Method Based On Deep Learning Approaches, International Journal of Pattern Recognition and Artificial Intelligence 2021,
- H. Nodehi and **A. Shahbahrami**, Multi-Metric Re-identification for Online Multi-Person Tracking, IEEE Transcation on Circuits and systems for Video Technology, Feb. 2021.
- A. Tourani, **A. Shahbahrami**, S. Soroori, S. Khazaee and C. Y. Suen, "A Robust Deep Learning Approach for Automatic Iranian Vehicle License Plate Detection and Recognition for Surveillance Systems", IEEE Access Vol. 8, Nov. 2020.
- A. Moradi, **A. Shahbahram**. A. R. Akoushide, "An Unsupervised Approach for Traffic Motion Patterns Extraction", IET Image Processing, 08 Dec. 2020,
- M. Sharifnejad, **A. Shahbahrami**, A. R. Akoushide, R. Hassanpour, "Facial Expression Recognition using a Combination of Enhanced LBP and PHOG Features Extraction", IET Image Processing, 14 Dec. 2020.
- A. R. Akoushide, B. Mazlom, **A. Shahbahrami**," Features' value Range Approach to Enhance the Throughput of Texture Classification", IET Image processing, 06 Dec. 2020

- A. Pourkashani, **A. Shahbahrami**, A. R. Akoushide, "Copy-move Forgery Detection using Convolutional Neural Network and K-Mean Clustering", International Journal of Electrical and Computer Engineering, Vol. 11, No. 3, June, 2021,
- K. Ghazipour and **A. Shahbahrami**, EGA: An Enhanced Genetic Algorithm for Numerical Functions Optimization, Journal of Soft Computing and information technology, Vol. 9. No. 1, April 2020.
- A. Telikani, A. Ghandomi, and **A. Shahbahrami**, A survey of evolutionary computation for association rule mining, Information Sciences, Vol. 524, March/2020.
- A. Telikani. H. Gangomi, **A. Shahbahrami**, M. N. Dehkordi, Privacy-preserving in association rule mining using an improved discrete binary artificial bee colony, Expert Systems with Applications, Vol. 144, April/2020.
- A. R. J. Afshany, A. Tourani, **A. Shahbahrami**, A. R. Akoushideh, Parallel Implementation of a Video-based Vehicle Speed Measurement System for Municipal Roadways, International Journal of Intelligent Systems and Applications, Vol. 11, No. 11, pp:25-37, Nov. 2019.
- H. Amiri and **A. Shahbahrami**, SIMD Programming using Intel Vector Extensions, Journal of Parallel and Distributed Computing, Vol. 135, pp:83-100, 2019
- A. Tourani, **A. Shahbahrami**, A. R. Akoushideh, S. Khazaei and C. Suen, Motion-based Vehicle Speed Measurement for Intelligent Transportation Systems, International Journal of Image, Graphics and Signal Processing (IJIGSP), Vol. 11, No. 4, 2019.
- F. Hossieni, **A. Shahbahrami** and P. Bayat, AdaptAhead Optimization Algorithm for Learning Deep CNN Applied to MRI Segmentation, Journal of Digital Imaging, Vol. 32, No. 1, 2019.
- H. Amiri, **A. Shahbahrami**, and B. Juurlink, "Performance Evaluation of Implicit and Explicit SIMDization," Microprocessors and Microsystems, vol. 63, pp. 158-168, 2018.
- F. Hoseini, **A. Shahbahrami**, and P. Bayat, "A hybrid optimization algorithm for learning deep models," Journal of Advances in Computer Research 9, no. 4, pp. 1-13, 2018.
- R. Abedi, A. E. Bonyad, A. Y. Moridani, and **A. Shahbahrami**, "Evaluation of IRS and Landsat 8 OLI imagery data for estimation forest attributes using k nearest neighbour non-parametric method," International Journal of Image and Data Fusion 9, no. 4, pp. 287-301, 2018.
- F. Hoseini, **A. Shahbahrami**, and P. Bayat. "An efficient implementation of deep convolutional neural networks for MRI segmentation," Journal of digital imaging 31, no. 5, pp. 738-747, 2018.
- F. Hoseini, **A. Shahbahrami**, and A. Y. Notash. "Target Tracking Based on Virtual Grid in Wireless Sensor Networks," Journal of AI and Data Mining 6, no. 2, pp. 313-319, 2018.
- A. Telikani, and **A. Shahbahrami**, "Data sanitization in association rule mining: An analytical review," Expert Systems with Applications 96, pp. 406-426, 2018.
- A. Telikani, and **A. Shahbahrami**, "Optimizing association rule hiding using combination of border and heuristic approaches," Applied Intelligence 47, no. 2, pp. 544-557, 2017.
- R. Abedi, A. Eslambonyad, and **A. Shahbahrami**, "Forest Density Classification using IRS Satellite Image and Non-parametric KNN Method," Journal of Forest and Wood Products (JFWP) (Iranian Journal of Natural Resources) 69, no. 4, pp. 667-677, 2017.
- S. Jam, **A. Shahbahrami**, and S. H. Sojoudi Ziyabari, "Parallel Implementation of Particle Swarm Optimization Variants Using Graphics Processing Unit Platform," IJE TRANSACTIONS A., vol. 30, No. 1, pp. 48-56, 2017.
- H. Frajpour and **A. Shahbahrami** ," Deblurring MR Images with Two-Step Algorithm, Asian Journal of Information Technology", scopus, Vol. 15. No. 1 page 1-6. Jan. 2016.
- A. Naghizadeh and **A. Shahbahrami** ,"Binary search routing equivalent (BSRE): a circular design for structured P2P networks ", Trans. on Emerging Telecommunications Technologies, Vol. 26 No. 12. ISI. IF: 1.295, December 2015.
- S. Aliasghari, F. Ahmadi-Abkenari, **A. Shahbahrami**, "Agile Oriented Risk Detection and Risk Classification in Custom Integrated Software", International Journal of Computer Science and Network Solutions (IJCSNS Vol. 3. No. 11, Pages: 37 -48, Google scholar, Harvard, Nov. 2015.
- A. Telekani, **A. Shahbahrami**, and R. Tavoli ,"Data sanitization in association rule mining based on impact factor", Journal of AI and Data Mining, Vo. 3 No. 2. Pp:131-140. November 2015.

- A. Attar, **A. Shahbahrami**, R. Moradi Rad , "Image quality assessment using edge based features" , Multimedia tools and applications , May 2015.
- F. Parhizkar Miandehi, and **A. shahbahrami**," Modeling and Prediction of Changes in Anzali Pond Using Linear Regression and GMDH Neural Network" , Journal of Applied environmental and biological sciences, 2015.
- F. Parhizkar Miandehi, and **A. shahbahrami**," Area and depth investigation of Anzali pond using satellite imageries and group method of data handling neural network", International Journal of Intelligent information systems, 67-70, 2014.
- B. Yahid, M. B. Nobakht, **A. Shahbahrami**," Trust in E-cheque in E-commerce", New Marketing Research Journal, Special Issue, 2014.
- M. Peyk Herfeh and **A. Shahbahrami** ," Evaluation of Adaptive Boosting and Neural Network in Earthquake Damage Levels Detection" , International Journal of Computer Applications, 10093), August 2014.
- F. Hossini, **A. Shahbahrami**, A. Yaghobi and P. Bayat "A Parallel Implementation of Modified Fuzzy Logic for Breast Cancer Detection", Journal of Advances in Computer Research, Vol, 7. No. 2, pp:139-148, 2013
- M. Tazibi, M. Saeb and **A. Shahbahrami**, "A new blind energy based DWT-SVD domain watermarking using error control coding ", International Journal of Knowledge-based and Intelligent Engineering Systems, Vol. 19, No. 2, 2013.
- B. Yahid, M. B. Nobakht, **A. Shahbahrami**," Trust in E-cheque in E-commerce", New Marketing Research Journal, Special Issue, 2014.
- A. Jafari, R. Hassanpour, **A. Shahbahrami**, S. Wong, " A Combined Spatial and Frequency Based Texture Model for Organ Segmentation in Computed Tomography Examinations", Journal of Medical Imaging and Health Informatics, American Scientific Publishers.
- E. Shamsinejad, **A. Shahbahrami**, A. R. Hedayati, A. Khademzadeh, H. Banirostam, "Presentation Methods for Task migration in Cloud Computing by Combination of Yu Router and Postostost-Copy, International Journal of Computer Science Issues
- H. Mohamadi, **A. Shahbahrami**, J. Akbari" Image Retrieval Using the Combination of Text-Based and Content-Based Algorithms, Journal of artificial intelligence and data mining, vol.1.no.1., pp:27-34, winter2013.
- N. Amani, **A. Shahbahrami** and M. Nahvi, "A New Approach for Face Image Enhancement and Recognition", International Journal of Advanced Science and Technology, Vol. 52, March pp:1-10, 2013.
- B. Yahid, **A. Shahbahrami** and M. B. Nobakhat, "Providing Security for E-Wallet using E-Cheque", International Journal of Information Science and Management (IJISM) pp:85-96, April, 2013.
- H. Mohamadi, **A. Shahbahrami** and J. Akbari" Image Retrieval Using the Combination of Text-Based and Content-Based Algorithms, Journal of artificial intelligence and data mining, Vol.1.No.1, pp:27-34,2013 .
- A. R. Akoushideh, **A. Shahbahrami** and B. M. Maybodi, "High Performance Implementation of Texture Features Extraction Algorithms using FPGA architecture", Journal of real time image processing, Vol.7, 2012.
- M. Salehpour and **A. Shahbahrami**, Alleviating Dynamic Resource Allocation for Bag of Tasks Applications in Cloud Computing, International Journal of Grid and Distributed Computing, Vol.5, No. 3, pp:95-110, Sept 2012.
- R. Asgari, A. A. Ramaki, E. Ebrahimi and **A.Shahbahrami**,"Multi Objective Design Space Exploaration for Grid ALU Processor, International Journal of Embedded Systems and Applications (IJESA), Vol.2, No.3. Sept 2012 .
- M. Ghane and **A. Shahbahrami**," Landscape Image Filtering via Aesthetic Inference, IOSR Journal of Engineering (IOSRJEN), Vol.2, No.8, pp:33-38. Indexed: Research Gate, Google, DOAJ, Academic Resources, Aug 2012.
- H. Gorgani, H. Hassanpour and **A. Shahbahrami**,"Computing of the burnt forest regions area using digital image processing, Journal of advances in computer research, Vol.3, No. 4. Pp:47-54.

- M. Ayobi, M. Ayobi, and **A. Shahbahrami**, "Evaluation of Security Attacks on UMTS Authentication Mechanism", International Journal of Network Security and Applications(IJNSA), Vol. 4. No. 4, pp:37 -52, Jul 2012.
- A. Attar, R. Moradi Rad and **A. Shahbahrami**, " A predictive algorithm for multimedia data compression", Multimedia Systems, Impact Factor:0.729, ISI, , Jul 2012.
- **A. Shahbahrami** "Algorithms and architectures for 2D discrete wavelet transform", The Journal of Supercomputing, Impact Factor: 0.578, ISI, 22 May 2012.
- M. Kiani Sarkaleh and **A. Shahbahrami** "Classification of ECG Arrhythmias Using Disceret Wavelet Transform and Neural Networks", International Journal of Computer Science, Engineering and Applications (IJCSEA) Vol.2, NO. 1, pp:1-13http://airccse.org/journal/ijcsea/current2012.html, February 2012.
- M. Ayobi, M. Ayobi, and **A. Shahbahrami**, Evaluation of Security Attacks on Different Mobile Communication Systems, Canadian Journal on Network and Information Security, 2012.
- M. Ayobi, M. Ayobi, and **A. Shahbahrami**, Evaluation of Security Attacks on UMTS Authentication Mechanism, International Journal of Network Security & Its Applications IJNSA, 2012.
- R. M. Rad, A. Attar and **A. Shahbahrami**, A predictive algorithm for multimedia data compression , Multimedia Systems, 2012.
- **A. Shahbahrami**, Algorithms and Architectures for 2D Discrete Wavelet Transform, The Journal of Supercomputing, 2012.
- H. Sharifi and **A. Shahbahrami**, An Evaluation of License Plate Recognition Algorithms, International Journal of Digital Information and Wireless Communications, 2012.
- M. Kiani and **A. Shahbahrami**, Classification of ECG Arrhythmias Using Discrete Wavelet Transform and Neural Networks; International Journal of Computer Science, Engineering and Applications, 2012.
- M. Ahmadi, **A. Shahbahrami** and S. Wong, Collaboration of reconfigurable processors in grid computing: Theory and application. Future Generation Computer Systems Vol.27, Issue 6, Pages 850-859, Jun 2011. http://www.elsevier.com/wps/find/journaldescription.cws_home/505611/description#
- **A. Shahbahrami**, Ramin Bahrampour,Mobin Sabbaghi Rostami and Mostafa Ayoubi Mobarhan "Evaluation of Huffman and Arithmetic Algorithms for Multimedia Compression Standards" International Journal of Computer Science, Engineering and Applications (IJCSEA), Vol. 1, No. 4, pp:44-56, Aug 2011.
- **A.Shahbahrami**, T. Anh Pham and K. Bertels. Parallel Implementation of Gray Level Co-occurrence Matrices and Haralick Texture Features on Cell Architecture. The Journal of Supercomputing pp. 1-23. Impact Factor: 0.545 http://www.springer.com/computer/swe/journal/11227 http://www.citeulike.org/journal/springerlink-100302/page/2, 2011.
- H. Sharifi and **A. Shahbahrami**, "An Evaluation of License Plate Recognition Algorithms", The SDIWC International Journal of Digital Information and Wireless Communications, Vol.1, No.1, pp:247-253, Nov. 2011.
- F. Tavakkoli, A. Andalib, **A. Shahbahrami** and R. Ebrahimi Atani "A Comparison of Lightweight Databases in Mobile Systems " Journal of Computing , Vol. 3, Issue 7, pp:147-152, July 2011 .
- **A. Shahbahrami**, R. Bahrampour, M. S. Rostami and M. A.i Mobarhan, Evaluation of Huffman and Arithmetic Algorithms for Multimedia Compression Standards, International Journal of Computer Science, Engineering and Applications (IJSCEA), Vol. 1, No. 4, Aug 2011.
- A. Andalib, F. Tavakoli, **A,Shahbahrami**, and R. Ebrahimi, A Comparison of Lightweight Databases in Mobile Systems, Journal of Computing , 2011.
- **A. Shahbahrami**, A. Thun, and K. Betels, Parallel implementation of Gray Level Co-occurrence Matrices and Haralick texture features on cell architecture, Journal of Supercomputing, July 2011.
- R. Hassanpour and **A. Shahbahrami**, Human Computer Interaction Using Vision-Based Hand Gesture Recognition, Journal of advances in Computer Research No.2, pp.21-30. 2010.

- M. Ahmadi, **A. Shahbahrami** and S. Wong, "Collaboration of Reconfigurable Processors in Grid Computing for Multimedia Kernels" Advances in Grid and Pervasive Computing (LNCS6104) pp:5-14, Springer, May 2010.
- **A.Shahbahrami** and B.H.H. Juurlink, "Performance Improvement of Multimedia Kernels by Alleviating Overhead Instructions on SIMD Devices" Advanced Parallel Processing Technologies (LNCS5737), pp: 389-407, Springer, Aug 2009.
- **A. Shahbahrami**, B.H.H. Juurlink and Stamatis Vassiliadis, "Implementing the 2DWavelet Transform on SIMD-Enhanced General-Purpose Processors", IEEE Transactions on Multimedia, Vol. 10, No. 1, pp: 43-51, Jan, 2008.
- **A. Shahbahrami**, B.H.H. Juurlink and Stamatis Vassiliadis, "Versatility of Extended Subwords and the Matrix Register File", ACM Transactions on Architecture and Code Optimization,Vol. 5, No. 1, Article No.: 5, 2008.
- R. Hassanpour, **A. Shahbahrami** and S. Wong "Adaptive Gaussian Mixture Model for Skin Color Segmentation", International Journal of Computer and Information Science and Engineering, Vol. 2, No. 2, 2008.
- **A. Shahbahrami**, B.H.H. Juurlink, D. Borodin and Stamatis Vassiliadis "Avoiding Conversion and Rearrangement Overhead in SIMD Architectures" International Journal of Parallel Programming, Vol. 34, No. 3, pp: 237-260, June, 2006.

Proceedings:

- Ghari, A. Tourani, and **A. Shahbahrami**, " A Robust Pedestrian Detection Approach for Autonomous Vehicles" 8th Iranian Conference on Signal Processing and Intelligent Systems (ICSPIS), December 2022.
- P Alipour and **A Shahbahrami**, An adaptive background subtraction approach based on frame differences in video surveillance, International Conference on Machine Vision and Image Processing (MVIP), 2022, 1-5.
- S. Khazaee, A. Tourani, S. Soroori, **A. Shahbahrami** and C. Y. Suen," A Robust Deep Learning Approach for Automatic Iranian Vehicle License Plate Detection and Recognition for Surveillance Systems" International Conference on Pattern Recognition and Artificial Intelligence, Oct. 2020, pp:425-438.
- A. Ranjkash, **A.Shahbahrami**, A. R. Akouhideh, Iranian License Plate Recognition using Deep Learning, The 11th Iranian and the first International Conference on Machine Vision and Image Processing (MVIP 2020)
- M. Moradifar and **A. Shahbahrami**, Performance Improvement of Gaussian Filter using SIMD Technology, The 11th Iranian and the first International Conference on Machine Vision and Image Processing (MVIP 2020)
- M. Moradifar, **A. Shahbahrami**, M. Nematpour and H. Amiri, Performance Improvement of Multimedia Kernels using Data- and Thread- level Parallelism on CPU Platform, TOP HPC 2018.
- R. Jolokhani and **A. Shahbahrami**, Accuracy Improvement of Face Recognition System based on Co-occurrence Matrix of Local Median Binary Pattern, The 4th International conference on Pattern Recognition and Image Analysis, 2019.
- A. Tourani. S. Soroori, **A. Shahbahrami**, S. Khazaei, A. R. Akoushideh, A Robust Vehicle Detection Approach based on Faster R-CNN Algorithm, The 4th International conference on Pattern Recognition and Image Analysis, 2019.
- B. A. Foumani, **A. Shahbahrami**, A. R. Akoushideh, A Style-Free and High Speed Algorithm for License Plate Detection, 10th Iranian Conference on Machine Vision and Image Processing, Nov. 22-23, 2017; Isfahan Univ. of Technology, Isfahan, Iran.
- H. Amiri and **A. Shahbahrami**, High performance implementation of 2D convolution using Intel's advanced vector extensions, 2017 Artificial Intelligence and Signal Processing Conference (AISP).

- H. Amiri and **A. Shahbahrami**, High performance implementation of 2-D convolution usingAVX2, 2017 19th International Symposium on Computer Architecture and Digital Systems.

- M. Shasavari, P. Boulet, **A. Shahbahrami**. S. Hamdioui, Impact of increasing number of neurons on performance of neuromorphic architecture, 2017 19th International Symposium on Computer Architecture and Digital Systems.

- A. Pourkashani, **A. Shahbahrami** and B. A. Foumani, Copy Move Forgery Detection Using Histogram Quantization of Cross Power Spectrum, 2017 International Conference on High Performance Computing & Simulation (HPCS),

- B. A. Foumani and **A. Shahbahrami**, License Plate Detection using Adaptive Morphological Closing and Local Adaptive Thresholding, 3rd International Conference on Pattern Recognition and Image Analysis (IPRIA), 2017.

- A.Asafnejhad, **A.shahbahram,** Signature Extraction and Recognition from Text Images Using Algorithm of Boundary Extension of Rectangle and Density Bounding Signature Area".

- M.badi, **A.Shahbahrami**, Provide a solution for the allocation of Customers authentication methods (Case study: multimedia contact center, Agriculture Bank of Iran ,the third conference on electronic banking and payment systems, Jan, 2014.

- Sh.Mosamami, Z. Ziran, **A. Shahbahrami**, M.Morad, E-Consumer Behavior Verification in Business to Consumer E-Commerce using Data Mining Technique "1st International Conference on New Directions in Business, Management, Finance and Economics Sept, 2013.

- M. Peyk Herfeh, **A. Shahbahrami**, F. Parhizkar Miandehi, Detecting Earthquake Damage levels Using Adaptive Boosting, http://mvip2013.znu.ac.ir/,2013.

- S. Timarchi, P. Ghayor, **A. Shahbahrami**. A Novel High-Speed Low-Power Binary Signed-Digit Adder, 16th International symposium on Computer Architecture and Digital Systems CADS2012.

- M. Ayobi, M. Ayobi, and **A. Shahbahrami** . Different Security Attacks on UMTS, 6th International Conference on e-Commerce in Developing Countries: with focus on e-Security, May, Shiraz, Iran,2012.

- M. Ayobi, M. Ayobi, and **A. Shahbahrami**. Security Vulnerabilities of the GSM, GPRS, and UMTS Systems, 6th International Conference on e-Commerce in Developing Countries: with focus on e-Security, May, Shiraz,2012.

- H. Sharifi**, A. Shahbahrami**, R. Hassanzadeh. MPEG-7 for e-Commerce Applications, 6th International Conference on e-Commerce in Developing Countries: with focus on e-Security, May, Shiraz, Iran,2012.

- M. S. Hossini, **A. Shahbahrami**, M. Moradi. Credit Scoring for Banks Based on Decision Tree and Neural Network Algorithms, 6th International Conference on e-Commerce in Developing Countries: with focus on e-Security, May, Shiraz, Iran,2012.

- B. Yahid, **A. Shahbahrami**, M. B. Nobakht. MOBILE E-CHEQUE, 6th International Conference on e-Commerce in Developing Countries: with focus on e-Security, May, Shiraz, Iran, 2012.

- M. Salehpour**, A. Shahbahrami**. Exploiting Parameters of SLA to Allocate Resources for Bag of Task Applications in Cloud Environment, Third International Conference on Contemporary Issues in Computer and Information Sciences, pp:262-266 (CICIS)May 29- May 31, 2012.

- M. Shikholeslami**, A. Shahbahrami**, R. Hassanzadeh and N. Karimpour. A Simple and Efficient Fusion Model based on the Majority Criteria for Human Skin Segmentation, Third International Conference on Contemporary Issues in Computer and Information Sciences, pp:374-379 (CICIS) May 29- May 31, 2012 .

- **A. Shahbahrami**. M. Abbasfard and R. Hassanpour. A Comparison of Transform-Domain Digital Image Watermarking Algorithms, Third International Conference on Contemporary Issues in Computer and Information Sciences, pp:329 (CICIS May 29- May 31, 2012) .

- M. Ayobi**, A. Shahbahrami,** S. Parva, M. Naghash and A. Khajekini. A License Plate Detection Algorithm using Edge Features, International Conference on Soft Computing, Artificial Intelligence and Applications, pp:413-421 ,2012.

- M. Mehri, R. Hassanzadeh and **A. Shahbahrami.** Application of Image Processing for Detection of Illicit Materials using X-ray Inspection Method, Congress on Detection and Analysis of Illicit Materials, Anti-Narcotics Police,12-13 Jan. 2012.
- L. Nejad Hashemi, B. Naser Sharif and **A. Shahbahrami**. Statistical Modeling in Wavelet domain for Bayesian Texture Classification and Retrieval, International Conference on Computer and Knowledge Engineering, Oct. 13-14, Ferdowsi University of Mashhad, Mashhad, Iran pp:310-315, 2011.
- M. Salepour and **A. Shahbahrami**. Alienable Services for Cloud Computing, International Conference on Intelligent Distributed Computing, Delft, The Netherlands, pp:195-200, Oct 7, 2011.
- S. Salehi, **A. Shahbahrami** and M. Mahdavi. Personalized Virtual University: Applying Personalization in Virtual University, The 2nd International Conference on Artificial Intelligence, Management Science and Electronic Commerce (AIMSEC) , Pp:6704-6706, April 27th 2011.
- Morteza Elmi Maryan, Maryam Habibi, Reza Ebrahimi Atani and **A. Shahbahrami**. Application of Barcode Tattoo in Security Systems. 5th International Computer and Instructional Technologies Symposium, 23 Sept, 2011.
- L. Azari, P. Abolghasem and **A. Shahbahrami**. DICOM Technology in E-health System, IADIS International Conference E-health 17. Pp:256-258, July 2011.
- A. Attar, R. M. Rad, and **A. Shahbahrami**. EBIQA: An Edge Based Image Quality Assessment, The 7th Iranian Conference on Machine Vision and Image, Processing**,** , Iran University of Science and Technology (IUST), Tehran, Iran, **http://mvip2011.iust.ac.ir**, http://mvip2011.ir, November 16-17, 2011.
- **A. Shahbahrami**. Improving the Performance of 2D Discrete Wavelet Transform using Data-Level Parallelism. The International Conference on High Performance Computing & Simulation (HPCS). Pp: 362-368, 2011.
- S. L. Nejadhashemi, B. Nasersharif, and **A. Shahbahrami**. Content-Based Image Retrieval in Wavelet Domain Using Feature Reduction. International Conference on Contemporary Issues in Computer and Information Sciences (CICIS), Pp:255-259, May 31/2011.
- H. Sharifi and **A. Shahbahrami**. A Comparative Study on Different License Plate Recognition Algorithms. The International Conference on Digital Information and CommunicationTechnology and its Applications, pp:686-691. France, June 2011 .
- S. Mehmandost, and **A. Shahbahrami**, A Comparison between Different Fingerprint Matching Techniques. The International Conference on Digital Information and Communication Technology and its Applications, pp:242-253, France, , June 2011.
- M. Faridi, and **A. Shahbahrami**. Electronic municipality as an alternative, complement, or development of traditional municipality. International Conference on Computer Communication and Management (ICCCM). Sydney Australia. pp. 611-615, 2011.
- S. L. Nejadhashemi, B. Nasersharif, and **A. Shahbahrami**. Content-Based Image Retrieval in Wavelet Domain Using Feature Reduction. International Conference on Contemporary Issues in Computer and Information Sciences (CICIS), Pp:255-259, May 31/2011.
- H. Sharifi and **A. Shahbahrami**. A Comparative Study on Different License Plate Recognition Algorithms. The International Conference on Digital Information and Communication Technology and its Applications. 90/3/31, pp:686-69., France, June 2011 .
- S. Mehmandost, and **A. Shahbahrami**, A Comparison between Different Fingerprint Matching Techniques. The International Conference on Digital Information and Communication Technology and its Applications, pp:242-253, France, June 2011 .
- M. Faridi, and **A. Shahbahrami**. Electronic municipality as an alternative, complement, or development of traditional municipality. International Conference on Computer Communication and Management (ICCCM). Sydney Australia. pp. 611-615 , 2011.
- A. Jafari, M. Rezvan and **A. Shahbahrami**. A Comparison Between Arithmetic and Huffman Coding Algorithms , The 6th Iranian Machine Vision and Image Processing Conference (MVIP), pp.248.254, 2010.
- **A. Shahbahrami** and F. Razavi. The Application of Parallel Processing in E-commence Systems. 1st National Conference on Soft Computing and Information Technology Mahshar pp. 265, 2010.

- A. R. Akoushideh and **A. Shahbahrami** Accelerating Texture Features Extraction Algorithms using FPGA Architecture. IEEE International Conference on Reconfigurable Computing. pp.232-237,2010.
- A. Attar, R. Moradi Rad, and **A. Shahbahrami** Effective Gradient-Based Algorithm for Predictive Image Compression. 3rd National Conference on Computer Engineering & Information Technology. Hamehdan pp.285-291, 2010.
- A. Attar, R. Moradi Rad, and **A. Shahbahrami**. An Accurate Gradient-Based Predictive Algorithm for Image Compression. The 8th International Conference on Advances in Mobile Computing & Multimedia (MoMM), pp.382-385,2010.
- A. Jafari, M. Rezvan and **A. Shahbahrami**. A Comparison Between Arithmetic and Huffman Coding Algorithms , The 6th Iranian Machine Vision and Image Processing Conference (MVIP), pp.248.254, 2010.
- Z. Sadeghi and **A. Shahbahrami**," Improving the Speed of the Network Intrusion Detection"
- M. Fallahmehr, S. S. Shaabanzadeh, M. Shabanifar and **A. Shahbahrami**," Customer Relationship Management Based on Data Mining Techniques
- A. Attar, R. Moradi Rad and **A. Shahbahrami**. An Accurate Gradient-Based Predictive Algorithm for Image Compression. The 8th International Conference on Advances in Mobile Computing & Multimedia (MoMM) pp.382-385, 2010.
- A. Attar, R. Moradi Rad, and **A. Shahbahrami** Effective Gradient-Based Algorithm for Predictive Image Compression. 3rd National Conference on Computer Engineering & Information Technology. Hamehdan.pp.285- 291 , 2010 .
- **A. Shahbahrami**. Improving the Performance of 2D Discrete Wavelet Transform using Data-Level Parallelism. The International Conference on High Performance Computing & Simulation (HPCS). Pp: 362-368, 2011.
- A. Akoushideh and **A. Shahbahrami**, Accelerating Texture Features Extraction Algorithms using FPGA Architecture, International Conference on ReConFigurable Computing and FPGAs, December 13-15, Cancun, Mexico, 2010.
- A. Attar, R. Moradi Rad and **A. Shahbahrami**, An Accurate Gradient-Based Predictive Algorithm for Image Compression, The 8th International Conference on Advances in Mobile Computing & Multimedia (MoMM, in Paris, France,), 8 - 10 Nov 2010.
- R. Hassanpour, **A. Shahbahrami** and S. Wong, Hand Segmentation by Fusing 2D and 3D Data, The 2nd International Conference on Computer modeling and simulation (iccms), January 2010.
- F. Tavakkoli, **A. Shahbahrami** and A. Andalib, "Comparison Between LightWeight Databases for Mobile Systems" Proc. 1st Iranian Student Conf. on Information Technology, University of Kordestan, Iran, July 2010.
- R. Hassanpour, **A. Shahbahrami** and S. Wong, "Hand Segmentation by Fusing 2D and 3D Data" Proc. 2nd Int. Conf. on Computer Modelling and Simulation, Jan 2010.
- **A. Shahbahrami**, M. Ahmadi, S. Wong and K.L.M. Bertels, "A New Approach to Implement Discrete Wavelet Transform using Collaboration of Reconfigurable Elements" Proc. Int. Conf. on DReConFigurable Computing and FPGAs, Cancun, Mexico, Dec 2009.
- M. Fazlali, A. Zakerolhosseini**, A. Shahbahram**i and G. N. Gaydadjiev, "High Speed Merged-datapath Design for Run-Time Reconfigurable Systems" Proc. Int. Conf. on Field-Programmable Technology (FPT09), Sydney, Australia, Dec 2009.
- **A.Shahbahrami** and B.H.H. Juurlink, "Optimization of Content-Based Image Retrieval Functions" Proc. 10th IEEE Int. Symp. on Multimedia (ISM2008) pp. 607-612, California, USA, Dec 2008.
- **A. Shahbahrami** and B.H.H. Juurlink, "A Comparison of Two SIMD Implementations of the 2D Discrete Wavelet Transform" Proc. 18th Annual Workshop on Circuits, Systems and Signal Processing (ProRISC2007), pp.169-177 , The Netherlands, Nov 2007.
- **A.Shahbahrami**, D. Borodin and B.H.H. Juurlink, "Comparison Between Color and Texture Features for Image Retrieval" Proc. 19th Annual Workshop on Circuits, Systems and Signal Processing (ProRISC2008), The Netherlands, Nov 2008.
- J. Tao and **A. Shahbahrami**, "Data Locality Optimization Based on Comprehensive Knowledge of the Cache Miss Reason: A Case Study with DWT", Proc. 10th IEEE Int. Conf. on High Performance Computing and Communications, 25-27, pp:304-311, Sept. 2008.

- **A. Shahbahrami** and B.H.H. Juurlink, "SIMD Architectural Enhancements to Improve the Performance of the 2D Discrete Wavelet Transform" Proc. 12th Euromicro Conf. on Digital System Design (DSD), pp:497-504, Patras, Greece, Aug 27-29, 2009.
- R. Hassanpour, **A. Shahbahrami** and S. Wong, "Adaptive Gaussian Mixture Model for Skin Color Segmentation", Proc. World Academy of Science, Engineering and Technology, Vol. 31, July 2008.
- Reza Hassanpour, Stephan Wong and **A. Shahbahrami**, "Vision-Based Hand Gesture Recognition for Human Computer Interaction: A Review", Proc. IADIS Int. Conf. Interfaces and Human Computer Interaction, July 2008.
- **A. Shahbahrami**, J. Young Hur, B.H.H. Juurlink and S. Vassiliadis "FPGA Implementation of Parallel Histogram Computation" 2nd HiPEAC Workshop on Reconfigurable Computing, pp. 63-72, Gotenborg, Sweden, Jan 2008.
- **A.Shahbahrami**, B.H.H. Juurlink and S. Vassiliadis "SIMD Vectorization of Histogram Functions" 18th IEEE Int. Conf. on Application-Specific Systems Architectures and Processors (ASAP) pp. 174-179, Montreal, Canada, Jul 2007.
- J. Tao, **A. Shahbahrami** and B. Juurlink, Rainer Buchty, Wolfgang Karl, Stamatis Vassiliadis, "Optimizing Cache Performance of the Discrete Wavelet Transform Using a Visualization Tool, Proc. 9th IEEE Int. Symp. on Multimedia, Dec 2007.
- **A.Shahbahrami**, B.H.H. Juurlink and S. Vassiliadis "Accelerating Color Space Conversion Using Extended Subwords and the Matrix Register File" Proc. 8th IEEE Int. Symp. on Multimedia (ISM2006), pp. 37-46, San Diego, California,USA, Dec 2006.
- **A.Shahbahrami**, B.H.H. Juurlink and S. Vassiliadis, "Performance Impact of Misaligned Accesses in SIMD Extensions" Proc. 17th Annual Workshop on Circuits, Systems and Signal Processing (ProRISC2006) , pp. 334-342, The Netherlands, Nov 2006.
- **A.Shahbahrami**, B.H.H. Juurlink and S. Vassiliadis "Limitation of Special-Purpose Instructions for Similarity Measurements in Media SIMD Extensions" Proc. ACM/IEEE Int. Conf. on Compilers, Architecture, and Synthesis for Embedded Systems, pp. 293-303, South Korea, 2006.
- **A.Shahbahrami**, B.H.H. Juurlink and S. Vassiliadis "Improving the Memory Behavior of Vertical Filtering in the Discrete Wavelet Transform" Proc. 3rd ACM Int. Conf. on Computing Frontiers pp. 253-260, Ischia, Italy, 2-5 May 2006
- **A.Shahbahrami**, B.H.H. Juurlink and S. Vassiliadis, "Efficient Vectorization of the FIR Filter" Proc. 16th AnnualWorkshop on Circuits, Systems and Signal Processing (ProRISC2005) , The Netherlands, Nov 2005.
- **A.Shahbahrami**, B.H.H. Juurlink and S. Vassiliadis, "Performance Comparison of SIMD Implementations of the Discrete Wavelet Transform" Proc. 16th IEEE Int. Conf. on Application-Specific Systems Architectures and Processors (ASAP) Samos, Greece, Jul 23-25, 2005.
- **A. Shahbahrami**, B.H.H. Juurlink and S. Vassiliadis, " Matrix Register File and Extended Subwords: Two Techniques for Embedded Media Processors" Proc. 2th ACM Int. Conf. on Computing Frontiers, Ischia, Italy, 4-6 May 2005.
- Juurlink, **A. Shahbahrami** and S. Vassiliadis "Avoiding Data Conversions in Embedded Media Processors" The 20th Annual ACM Symposium on Applied Computing Santa Fe, New Mexico, March 13 -17, 2005.
- **A. Shahbahrami**, B.H.H. Juurlink and S. Vassiliadis, "A Comparison Between Processor Architectures for Multimedia Applications" Proc. 15th Annual Workshop on Circuits, Systems and Signal Processing (ProRISC2004), The Netherlands, Nov 2004.
- **A.Shahbahrami** "The Determination of Initial Condition in Constraint Satisfaction Neural Networks for Medical Images Segmentation" The 6th Int. Conf. on CSI Computer (CSICS 2001) University of Isfahan, Iran, 20-22 Feb. 2001.
- **A. Shahbahrami** "A Comparison of Nonparametric Algorithms in Selection of Thresholding Based on Entropy" Proc. 1st Int. Iranian Conf. on Machine Vision, Image Processing and Applications (MVIP2001), Birjand, Iran, 2001.
- **A. Shahbahrami** "The Selection of Multiple Threshold Scheme for Image Segmentation Based on Co-Occurrence Matrix" The 6th Annual Scientific and Research Conference in the University of Guilan, 10-12 March 2000.

- **A.Shahbahrami** "Simulation of a Environment for Comparison of Different Page Replacement Algorithms in Structural Memory Hierarchy" The 7th Annual Scientific and Research Conference in the University of Guilan, 5-7 March 2001.

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