Address: No 81849-14911, Motahari Ave, Isfahan, Iran.

Cell: +989133105552
Email: fzabor@gmail.com

CURRICULUM VITAE
Farsad Zamani Boroujeni

Assistant Professor

Personal profile

I have studied PhD of Computer Science at Universiti Putra Malaysia. I have many years of work experience in scientific programming and conducting research projects on Big Data, Data Mining and Machine Learning as well as teaching computer science courses and supervising graduate students.

I have good potential in conducting research programming and an ability to actively contribute to the research projects goals as well as a proven publication track record and a good standard of written and spoken English. I describe myself as happy, open and honest and committed person who is good at handling many balls in the air and seeking solutions within the given problem domain. I enjoy working in a professional team with friendly environment.

Education

2008 – 2013

Ph.D. in Computer Science
Universiti Putra Malaysia (UPM)*
* Recognized as one of Malaysians leading research universities in accredited by Malaysian Ministry of Science, Technology and Innovation.
GPA: 3.875 out of 4
This education has been approved by Centre for Assessment of Foreign Qualifications

1998-2001

MSc in Software Engineering
Islamic Azad University, South Tehran Branch, Iran

GPA: 17.01 out of 20
This education has been approved by Centre for Assessment of Foreign Qualifications

1992-1997

BSc in Software Engineering
Azad University, Najafabad Branch, Esfahan, Iran.

GPA: 16.24 out of 20
This education has been approved by Centre for Assessment of Foreign Qualifications

Skills

Databases and Connectors	MongoDB, Hbase, Oracle, SQL Server, MySQL, ODBC, OLE DB
Software Analysis Methods	SSADM, OOA / OOD, UML, Agile, Scrum
Programming Languages and Technologies	Java, Scala, Python, C, C++, C#.Net, Matlab Hadoop, Map-Reduce, Spark, ML-Lib, Mahout, Hive, Pig, Oozie, Zookeeper
Data Analysis Tools	WEKA, Rapid Miner, IBM SPSS Data Modeler, Orange

Work Experience

2012 – 2020 Azad University, Isfahan Branch, Iran

Assistant Professor (44 hours per week)

Tasks:

1. **Lecturer (Latest)**
   Teaching Undergraduate and graduate courses in the field of computer science.

2. **Research Leader – Isfahan Science and Technology Town (Latest)**
   Design and implementation of a big data infrastructure for analysing traffic data for Municipality of Isfahan. I am responsible for installing, configuring and testing Hadoop Ecosystem components. Developing machine learning algorithms with Scala, Spark using MLLib components. I am also responsible for analysing research problems and developing solutions that involve computational algorithms, scheduling and assigning tasks, reviewing proposals and project plans to identify feasibility issues.

3. **Director of Computer and Electrical Engineering Research Labs**
   Administer and coordinate the technical activities, educational programs, and infrastructure related to the operation of the specialized laboratories. Develop and implement Laboratory(s) policies and procedures. Advise on technical procedures, techniques and equipment, and maintain conformance with specific operational standards.

2008– 2012 CGV2 Group, University Putra Malaysia, Malaysia,
Research Assistant (40 hours per week)

Tasks:

1. Implementing Signal Processing algorithms (using C++ and Matlab) for real-time processing of digital signals acquired from medical devices.
2. Completing a research proposal with appropriate supervisory assistance.
3. Assisting in preparation of presentations, manuscripts and project related topics.
4. Exhibiting the results of the research experiments to research group members.
5. Conducting data analysis and computations.
6. Providing data files and hard copy reports and materials to the supervisor in a timely manner.
7. Writing research reports based upon data results.

Projects:

- In a team of 17 members, I worked on the project called "Computer assisted cardiologist (CAC)" aimed at producing embedded devices to assist medical experts. I contributed to the development of the following systems:
  - Fully Automatic Center-line Extraction and Stenosis Detection from Fluoroscopic Image Sequences.
  - Vascular Modelling and Simulation of Coronary Arteries in Angiogram Images

Achievements:

1. Joined the project team and required only 15 days to start effectively working on the project in an international institution with English speaking colleagues and multi-cultural environment, when the average ramp up time is normally 1 month.

2002 – 2007   IT Manager, Azad University, Isfahan

Manager of Information Technology Department

Departmental IT Projects:

1. Analysis, design and implementation of a web-based document management system based on a Java library named "Apache Lucene", for analyzing the originality of students' thesis documents written in Farsi language comparing with specific database of original document.

2. Analysis, design and implementation of an information systems for Research Deputy Department of the university called CIRIS (ciris.khuisf.ac.ir) which is used for managing and organizing the research profiles of staff and faculty members.

Achievements:

- Facilitated customization of systems by encouraging software engineering team to adopt emerging standards for software application development architecture
- Incorporated Object Oriented Software Development methods and related CASE tools led to high quality interactions in the work place and 20% reduction relative to estimated development time.
- Implementing an integrated network infrastructure with centralized administration, high speed Internet on fiber-optic media and standard data center.

Awards & Honors

- Selected as the outstanding lecturer among 470 faculty members in Islamic Azad University – Isfahan Branch, Iran. (Apr. 2013).
- Certificate of Merit from IAENG 2010 International Conference on Imaging Engineering.
- Silver Medal for Invention from PRPI Invention/Innovation Expo (MTDC Technology Centre –Malaysia 2011)
- Silver Medal for Invention from Ministry of Science, Technology and Innovation (MOSTI) Malaysian Technology Expo (National MTE - 2012)

Administrative and Management Duties

- Appointed member of IAU provincial scientific workgroup for computer science and IT infrastructure, 2014.
- Member of the coordinating committee for M.Sc. education, Azad University, 2013-.
- Member of the IT consultation committee for IAU Science Parks and Incubators, 2012-.
- Appointed director of research labs at IAU, Isfahan Campus, 2013-2014.

Reviewing and Assessment Assignments

- Scientific committee, National Conference on New Ideas in Electrical Engineering, Isfahan Branch, Islamic Azad University, Dec. 2019.
- Scientific reviewer for Journal of Cardiothoracic Surgery, May 2014.

- Technical committee, National Conference on Computer Science and Engineering, Najafabad Branch, Islamic Azad University - 19, 20 Feb. 2013.
- Scientific reviewer for Journal of Computer Science, Apr. 2013.
- Technical Commitee, International Conference on Biomedical Engineering and Sciences, IEEE Engineering in Medicine and Biology Society (EMBS), 17 – 19 Dec. 2012.
- External examination for M.Sc programs in Electrical Engineering and Computer Science in IAU branches (Science and Research, Najafabad, Isfahan), 2012 – 2015.

PROFESSIONAL MEMBERSHIPS

- IEEE Computer Society, Since 2009
- IEEE Signal Processing Society, Since 2009
- IAENG Hong Kong, Since 2010
- Computer Society of Iran, Since 2007
- Iranian Engineers Association, Since 2007

Teaching

Supervision
- 35 Master's thesis projects

M.Sc. schools
- Islamic Azad University, Najafabad Branch – Faculty of Computer Engineering - graduate school
- University of Science and Research, Isfahan Campus - graduate school
- Islamic Azad University, Isfahan Branch – Faculty of Computer Engineering - graduate school

M.Sc. / B.Sc. courses
- Advanced Topics in Software Engineering (Data Mining) - design of present course including lecture notes and Matlab computer exercises, taught it since 2012.
- Digital Image Processing – design of present course in 2012, taught it since 2012, text book, and Matlab computer exercises.
- Pattern Recognition for Computer Vision – co-design of course materials in 2012, co-taught it in 2012-2013, co-redesigned course in 2013, co-taught it since 2013, textbook, Matlab computer exercises.
- Design of Computer Algorithms –co-taught it 2003-2007, textbook, Matlab computer exercises.
- Computer Graphics – co-design of course materials in 2004, co-taught it in 2004, co-redesigned course in 2005, co-taught it since 2005, textbook, computer exercises.
- C++ Programming –taught it 2002-2007, textbook, computer exercises.

Voluntary Works

Parham non-Profit School, Isfahan, Iran
2012 – 2020   Assignment: Senior member of Teachers and Parents Association

Duties:
1. Setting up meetings between parents and teachers
2. Directing cultural programs
3. Finding financial sponsors for needy students

Results:
- Addition of 40 members
- Increased number of sponsors for the association

MAHAK Charity Organization, Tehran, Iran
2009 – 2012   Assignment: Voluntary Translator

- Translating English documents and also collecting financial helps from other members for treatment of children with cancer in Isfahan.

Languages

English   Fluent (IELTS overall score: 7.0)
Persian   Native

Interests

My research interests include Software Engineering, Signal and Image Processing and data mining. I enjoy traveling, investing and voluntary work in children charities. I also like swimming, biking and jugging.

References

1. Seyed Amirhassan Monadjemi, Associate Professor,
   Faculty of Electrical and Computer Engineering - University of Isfahan, Iran.
   monadjemi@eng.ui.ac.ir (+98-913-114-3974).
2. Dr. Rahmita Wirza O.K Rahmat, Associate Professor,
   Faculty of Computer Science and Information Technology- Universiti Putra malaysia, Malaysia.
   rahmita@upm.edu.my, r.wirza@gmail.com (+60-3-8947-1704).
3. Dr. Mohammad Reza Soltan Aghaei, Head of Computer Engineering Department,
   Azad University, Isfahan Branch, Iran.
   soltan@khuisf.ac.ir (+98-913-100-7037).

Selected Publications

Journal Articles

- A. B. Dehkordi , M. Soltanaghaei, **F.Z. Boroujeni**. "The DDoS attacks detection through machine learning and statistical methods in SDN". *The Journal of Supercomputing*,pp. 1-33, 2020.
- R. Asgarnezhad, M. Shekofteh, **F.Z. Boroujeni**. "Improving Diagnosis of Diabetes Mellitus Using Combination of Preprocessing Techniques". *Journal of Theoretical & Applied Information Technology*, vol. 95(13), 2017.
- D. H. Afshari, **F. Z. Boroujeni**," Improving "RRLR" algorithm to hide sensitive association rules with multiple LHS and RHS items*", Turkish Journal of Electrical Engineering & Computer Sciences*, pp. 100-110, 2015.
- Asadi, H. Moayedi, H. Huat B. B. K., **F. Z. Boroujeni**, A. Parsaie, S. Sojoudi, "Prediction of Zeta Potential for Tropical Peat in the presence of different Cations using Artificial Neural Networks". *International Journal of Electrochemical Science*, pp. 61146-58, 2012**.**
- **F. Z. Boroujeni**, R. Wirza, O. K. Rahmat, N. Mustapha, L. S. Affendey, and O. Maskon, "Automatic Selection of Initial Points for Exploratory Vessel Tracing in Fluoroscopic Images," *Defence Science Journal*, vol. 61, pp. 443-451, 2011.
- **F. Z. Boroujeni**, Rahmita Wirza O.K Rahmat , Norwati Mustapha, Lilly Suriani Affendey and Oteh Maskon, "Coronary Artery Center-line Extraction Using Second Order Local Features", *Computational and Mathematical Methods in Medicine*, pp. 1-20, 2010.

Conference Papers

- F. Z. Boroujeni, S. Jahangard, R. W. O. Rahmat, "A Brief Review on Vessel Extraction and Tracking Methods", IEEE *International Conference on Computer and Knowledge Engineering (ICCKE)*, pp. 46-52, 2019.

- P. Mousavi, **F. Z. Boroujeni**, S.A Monadjemi," A Review on Applying Evolutionary Algorithms for Optimized Feature Selection*", National e-Conference on Advances in Basic Sciences and Engineering*, Iran, 2014.

- **F. Z. Boroujeni**, R. Wirza, N. Mustapha, L. S. Affendey, O. Maskon, and M. Khalilian, "A New Tracing Algorithm for Automatic Boundary Extraction from Coronary Cineangiograms", *International MultiConference of Engineers and Computer Scientists (IAENG 2010)*, Hong Kong, 2010.

- **F. Z. Boroujeni**, R. Wirza, O. Maskon, A. Khosravi, and M. Khalilian, "An Improved Seed Point Detection Algorithm for Centerline Tracing in Coronary Angiograms", *7th International Conference on Information Technology Next Generation (ITNG' 10)*, USA Las Vegas, 2010.

- **F. Z. Boroujeni**, R. Wirza, O. K. Rahmat, N. Mustapha, L. S. Affendey, and O. Maskon, " Improved Stent Localization Using Shape-Based Similarity Scores", *International Conference on Advanced Computer Science Applications and Technologies – ACSAT 2012*, Malaysia, 2012.

- M. Khalilian, H. Abolhassani, A. Alijamaat, and F. Z. Boroujeni, "PCI: Plants Classification & Identification Classification of Web Pages for Constructing Plants Web Directory*", 6th International Conference on Information Technology Next Generation (ITNG 09)*, USA, Las Vegas, 2009.

- M. Khalilian, **F. Z. Boroujeni**, N. Mustapha, and M. N. Sulaiman, "K-Means Divide and Conquer Clustering", *Computer and Automation Engineering '09*, Bangkok Thailand, 2009.

- M. Khalilian, **F. Z. Boroujeni**, and N. Mustapha, "Improving Performance in Constructing specific Web Directory using Focused Crawler: An Experiment on Botany Domain ", *Advanced Techniques in Computing Sciences and Software Engineering* , pp 461-466, 2010.