# Ramin Safa

Faculty Member | AI & Health Informatics Researcher | Technical Director

# CONTACT INFORMATION

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# RESEARCH INTERESTS

Healthcare

- Personalization
- Mental Health Informatics
- Recommender Systems
- Text Mining

#### **EDUCATION**

# Ph.D. in Computer Engineering (Sept. 2015–Sept. 2022)

Major in Software Systems

Under the Supervision of Dr. Peyman Bayat

GPA: 19.13/20

• Defended by "Excellent" Rank

Rasht Branch, Islamic Azad University (IAU), Rasht, Iran

# M.Sc. in Information Technology (Sept. 2012–Sept. 2014)

Major in Electronic Commerce

Under the Supervision of Dr. Seyed Abolghasem Mirroshandel

GPA: 17.80/20

• Ranked in the top 5% of university computer engineering students.

Relevant Coursework (all with grades A+ or A): Business Intelligence, Electronic Commerce, Pervasive Computing, E-Commerce Security, Distributed Systems, Multimedia Systems, and M.Sc. Thesis.

The University of Guilan, Rasht, Iran

### B.Sc. in Computer Engineering (Sept. 2009–Jul. 2012)

Major in Software Engineering

GPA: 17.32/20

• Ranked in the top 10% of university computer engineering students.

Relevant Coursework (all with grades A+ or A): Data Structure, Database Design, Artificial Intelligence, Data Mining, Web Programming, Advanced Programming, Internet Engineering, and Software Engineering.

Lahijan Branch, Islamic Azad University (IAU), Lahijan, Iran

#### **PUBLICATIONS**

#### **Book Chapter**

**Safa, R.**, Edalatpanah, S. A., & Sorourkhah, A., "Predicting mental health using social media: A roadmap for future development." Deep Learning in Personalized Healthcare and Decision Support. Academic Press, 2023. <a href="https://doi.org/10.1016/b978-0-443-19413-9.00014-x">https://doi.org/10.1016/b978-0-443-19413-9.00014-x</a>

#### **Journal Papers**

- 10. Kaveh, S., & **Safa R.**, "Advancing natural language processing for Persian movie review analysis: roadmap and opportunities." Computational Algorithms and Numerical Dimensions, 4(1), 34-47. 2025. <a href="https://doi.org/10.22105/cand.2024.493386.1168">https://doi.org/10.22105/cand.2024.493386.1168</a>
- 9. Abdollahi, Sh., & **Safa R.**, "Machine learning and AI for advancing Parkinson's disease diagnosis: exploring promising applications." Big Data and Computing Visions, 4(1), 12-21. 2024. https://doi.org/10.22105/bdcv.2024.458879.1180

- 8. Pourkeyvan, A., **Safa R.**, & Sorourkhah, A., "Harnessing the power of hugging face transformers for predicting mental health disorders in social networks." IEEE Access, 12, 28025-28035. 2024. https://doi.org/10.1109/ACCESS.2024.3366653
- 7. Saeedi, Sh., Bozanic, D., & **Safa R.**, "Strategic analytics for predicting students' academic performance using cluster analysis and Bayesian Networks.", Education Science and Management, 2(4), 197-214. 2024. <a href="https://doi.org/10.56578/esm020402">https://doi.org/10.56578/esm020402</a>
- 6. Kuang, M., **Safa, R.**, Edalatpanah, S. A., & Keyser, R. S., "A hybrid deep learning approach for sentiment analysis in product reviews." *Facta Universitatis, Series: Mechanical Engineering*, 21(3), 479-500, 2023. <a href="https://doi.org/10.22190/FUME230901038K">https://doi.org/10.22190/FUME230901038K</a>
- 5. **Safa, R.**, Bayat, P., & Moghtader, L., "Automatic detection of depression symptoms in Twitter using multimodal analysis." *The Journal of Supercomputing*, 78(4), 4709-4744, 2022. <a href="https://doi.org/10.1007/s11227-021-04040-8">https://doi.org/10.1007/s11227-021-04040-8</a>
- 4. **Safa, R.**, Bayat, P., & Moghtader, L., "Developing clinical decision support systems in psychiatry using microblogging data." *Journal of Decisions and Operations Research*, 7(2), 259-276, 2022. (In Persian) <a href="https://dorl.net/dor/20.1001.1.25385097.1401.7.2.4.1">https://dorl.net/dor/20.1001.1.25385097.1401.7.2.4.1</a>
- 3. Taghvaei, F., & **Safa, R.**, "Efficient energy consumption in smart buildings using Personalized NILM-based recommender system". *Big Data and Computing Visions*, 1(3), 161-169, 2021. https://dx.doi.org/10.22105/bdcv.2022.325031.1039
- 2. Javadi, S., **Safa, R.**, Azizi, M., & Mirroshandel, S. A., "A recommendation system for finding experts in online scientific communities." *Journal of AI and Data Mining*, 8(4), 573-584, 2020. https://doi.org/10.22044/jadm.2020.9087.2045
- 1. **Safa, R.**, Mirroshandel, S., Javadi, S., & Azizi, M., "Venue recommendation based on paper's title and co-authors network." *Journal of Information Systems and Telecommunication*, 6(1), 33-40, 2018. <a href="https://doi.org/10.7508/jist.2018.21.005">https://doi.org/10.7508/jist.2018.21.005</a>

#### **Conference Papers**

- 16. Ebrahimzadeh, F. and **Safa, R.**, "Unlocking the Potential of the Metaverse for Innovative and Immersive Digital Heath". *Proceedings of the 3<sup>rd</sup> Seminar on Data Science and Its Applications*, Mashhad, Khorasan, December 2024. <a href="https://doi.org/10.48550/arXiv.2406.07114">https://doi.org/10.48550/arXiv.2406.07114</a>
- 15. Harati, N. and **Safa, R.**, "An Overview of Information Technology and Artificial Intelligence Applications in Management of COVID-19 Pandemic". *Proceedings of the 1st Digital Transformation and Intelligent Systems Conference*, Larestan, Fars, December 2021. (In Persian) <a href="https://civilica.com/doc/1383997/">https://civilica.com/doc/1383997/</a>
- 14. Abdari, S. and **Safa, R.**, "Personalization and Behavioral Marketing in E-Commerce Websites." *Proceedings of the 6<sup>th</sup> National Conference on Distributed Computing and Big Data Processing*, Tabriz, Iran, March 2021. (In Persian) <a href="https://civilica.com/doc/1167795/">https://civilica.com/doc/1167795/</a>
- 13. Taghvai, F., **Safa, R.**, and Beheshti, H., "Personalization of Energy Consumption in Smart Homes using Machine Learning Technique." *Proceedings of the 6<sup>th</sup> International Conference on Web Research*, Tehran, Iran, April 2020. (In Persian) <a href="https://sid.ir/paper/899734">https://sid.ir/paper/899734</a>
- 12. Taghvai, F., Rajabi, S., and **Safa, R.**, "Applications of Blockchain in IoT and Healthcare." *Proceedings of the 2<sup>nd</sup> National Congress of Medical Informatics and the 7<sup>th</sup> Electronic Health Conference*, Tehran, Iran, July 2018. (In Persian) <a href="https://civilica.com/doc/812354/">https://civilica.com/doc/812354/</a>
- 11. Hasanizadeh, P., Yahyapour, S., and **Safa, R.**, "Big Data Analytics in E-Health." *Proceedings of the 4th National Conference on Distributed Computing and Big Data Processing*, Tabriz, Iran, May 2018. (In Persian) <a href="https://civilica.com/doc/772467/">https://civilica.com/doc/772467/</a>
- 10. Meskini, F., Soleymanpour, Sh., and **Safa, R.**, "Utilizing Data Mining Techniques in Social Network Analysis." *Proceedings of the 4<sup>th</sup> National Conference on Distributed Computing and Big Data Processing*, Tabriz, Iran, May 2018. (In Persian) <a href="https://civilica.com/doc/772491/">https://civilica.com/doc/772491/</a>

- 9. Alavi, S. N., Safa, R., and Beheshti, H., "Analysis of Security Issues in Mobile Payment Protocols." Proceedings of the International Scientific Conference on Challenges in Engineering, Technology and Applied Sciences, Dubai, UAE, March 2018. (In Persian) https://civilica.com/doc/755687/
- 8. Alavi, S. N. and Safa, R., "A Review of Technologies, Protocols, and Challenges of Mobile Payment Security." Proceedings of the 2<sup>nd</sup> International Conference on Knowledge-based Research in Computer Engineering & Information Technology, Tehran, Iran, September 2017. https://civilica.com/doc/696011/
- 7. Safa, R. and Bayat, P., "Investigate the Starvation Problem in Mutual Exclusion Algorithms From a Game Theory Perspective." Proceedings of the 3<sup>rd</sup> National Conference on Distributed Computing and Big Data Processing, Tabriz, Iran, May 2017. (In Persian) https://civilica.com/doc/649152/
- 6. Moshirian, M. S., Safa, R., and Beheshti Foroutani, H., "Using Data Mining Techniques in Medicine with a Focus on Heart Disease." Proceedings of the 3<sup>rd</sup> National Conference on Engineering Science, Tonekabon, Iran, May 2016. (In Persian) https://civilica.com/doc/543745/
- 5. Ekragholipour, M., Khodaverdi, F., and Safa, R., "Investigate the relationship between Cloud Computing, Big Data, and IoT." Proceedings of the 3rd National Conference on Engineering Science, Tonekabon, Iran, May 2016. (in Persian) https://civilica.com/doc/543620/
- 4. Safa, R. and Azizi, M., "Information Customization using Publications' Metadata." Proceedings of the 2<sup>nd</sup> National Conference on Engineering Science, Tonekabon, Iran, May 2015. (in Persian) https://civilica.com/doc/386086/
- 3. Safa, R. and Sedaghat, N., "The Risks of E-Banking and Security Issues." Proceedings of the 2nd National Conference on Engineering Science, Tonekabon, Iran, May 2015. (in Persian)
- 2. Azizi, M., Mirroshandel, S. A., Safa, R., and Javadi, S., "The Role of Customized Search on Online Scientific Communities and an Approach for Finding Experts". Proceedings of the 2<sup>nd</sup> National Conference on Applied Researches in Computer Science and Information Technology, Tehran, Iran, February 2015. (in Persian) https://civilica.com/doc/455321/
- 1. Safa, R. and Mirroshandel, S. A., "A Model to Determine the Appropriate Publishing Venue." Proceedings of the 2<sup>nd</sup> National Conference on Meta-Heuristic Algorithm and its Application in Engineering and Science, Fereydounkenar, Iran, August 2014. (in Persian) https://civilica.com/doc/337201/

# **SCIENTIFIC COMMITTEE MEMBERSHIP**

#### Journal Peer Reviewing (verified on Web of Science)

The Journal of Supercomputing PeerJ Computer Science Journal of Medical Internet Research Social Network Analysis and Mining BMC Public Health Intelligent Automation and Soft Computing Computer Systems Science and Engineering Computers Materials & Continua Bulletin of Electrical Engineering and Informatics Computer Modeling in Engineering & Sciences Computers in Human Behavior Innovation Management and Operational Strategies Advances in Mathematical Physics

Journal of Fuzzy Extension and Applications

Journal of Mathematical Problems in Engineering

Journal of Applied Research on Industrial Engineering

Journal of Decisions and Operations Research

International Journal of Research in Industrial Engineering

#### Conference Peer Reviewing

**IEEE Access** 

The 4th International Symposium on Computer Science and Intelligent Control (ISoCC 2020) - Newcastle, UK, August 2020.

The 12<sup>th</sup> International Conference on Data Envelopment Analysis (DEA 12) - Tonekabon, Iran, October 2020.

• Scientific / Program Committee Member

The International Joint Conference on Automation Science and Engineering (JCASE 2020) - Athens, Greece, January 2020.

The 3<sup>rd</sup> International Conference on Artificial Intelligence in Renewable Energetic Systems (IC-AIRES2019) - Bechar, Algeria, November 2019.

The 3<sup>rd</sup> International Symposium on Computer Science and Intelligent Control (ISCSIC **2019**) - Amsterdam, Netherlands, October 2019.

The 2<sup>nd</sup> International Conference on Bioinformatics and Neurosciences (ICoBN 2019) - Vancouver, Canada, August 2019.

International Conference on Bioinformatics and Neurosciences, Nevada (ICoBN 2018) - Las Vegas, USA. August 2018.

The International Conference on Innovation and Research in Engineering Sciences (ICIRES 2018) - Tbilisi, Georgia, July 2018.

The 2<sup>nd</sup> International Symposium on Computer Science and Intelligent Control (ISCSIC **2018**) - Stockholm, Sweden, September 2018.

The 2<sup>nd</sup> National Conference on Knowledge and Technology of Electrical, Computer and Mechanical Engineering of Iran - Tehran, Iran, May 2018.

Scientific / Program Committee Member

The International Scientific Conference on Challenges in Engineering, Technology and Applied Sciences - Dubai, UAE, March 2018.

# SCIENTIFIC ADMINISTRATION

#### Journal Management / Editorial Board Membership

Computational Algorithms and Numerical Dimensions

Coordinator

Journal of Artificial Intelligence and Big Data

• Editorial Board Member

Journal of Advances in Artificial Intelligence

• Editorial Board Member

#### **Event Coordination**

A Series of Workshops of the Computer Students' Scientific Association AIHE, Tonekabon, Iran, May 2022.

A Series of Specialized Lectures of the Research Week of the Faculty of Electrical and Computer Engineering

AIHE, Tonekabon, Iran, December 2022.

Futurology and the Cognitive Science Workshop

Tonekabon, Iran, October 2018.

#### Scientific Coordinator

The 1st Seminar on Applied Research in Computer, Information Technology, and Electrical Engineering

Tonekabon, Iran, December 2017.

#### The 3rd National Conference on Engineering Science

Tonekabon, Iran, May 2016.

#### PRESENTATIONS AND WORKSHOPS

### Information Extraction and Analysis in Social Networks

Research Week, AIHE, Tonekabon, Iran, December 2024.

#### Impact of AI on Future Job Roles

Career Week, AIHE, Tonekabon, Iran, April 2023.

### Towards Predicting Mental Health Using Social Data Mining

Research Week, AIHE, Tonekabon, Iran, December 2022.

#### Personalization and Recommender Systems

The First Seminar on Applied Research in Computer, Information Technology, and Electrical Engineering, Tonekabon, Iran, December 2017.

# Reference Management Software and Tools

AIHE, Tonekabon, Iran, November 2016.

# Application of Recommender Systems in Online Scientific Communities

Research Week Conference, University of Guilan, Rasht, Iran, December 2013.

# WORKING EXPERIENCES

# Head of Computer Engineering Department (2022-Present)

AIHE, Tonekabon, Iran

# Faculty Member, Computer Engineering (2020-Present)

AIHE, Tonekabon, Iran

#### Director of the Innovation Hub (2020-2023)

AIHE, Tonekabon, Iran

### Technical Lead, Editor & Journal Manager (2023-Present)

**REA Press** 

# IT Consultant (2017-2022)

Tarannom Company

#### IT Consultant and Webmaster (2017-2021)

TJ Software Solutions

# TEACHING EXPERIENCES

### Faculty Member (2013-Present)

AIHE, Tonekabon, Iran

Teaching: Web Programming, Internet Engineering, Data Mining, E-Commerce, Advanced Topics

#### **Lecturer** (2013-Present)

Tonekabon Branch, Islamic Azad University (IAU), Tonekabon, Iran

Teaching: Web Programming, Internet Engineering, Data Mining, Scientific and Technical

Presentation, Computer Workshop

#### Lecturer (2016-2017)

Ramsar Branch, Islamic Azad University (IAU), Ramsar, Iran

Teaching: Fundamentals of Programming

### Lecturer (Spring 2017)

Kasra Institute of Higher Education, Ramsar, Iran

Teaching: Web Programming

#### **Lecturer** (2013-2016)

Sama Technical and Vocational Training College, Tonekabon Branch, Islamic Azad University, Tonekabon, Iran

Teaching: Scientific and Technical Presentation, Software Engineering, Fundamental of Programming

Lecturer (2015-2016)

Roudaki Institute of Higher Education, Tonekabon, Iran Teaching: Computer Workshop, Advanced Topics

Teaching Assistant (Fall 2014 & Spring 2015)

The University of Guilan, Rasht, Iran

Business Intelligence and Advanced Topics (Dr. Seyed Abolghasem Mirroshandel)

STUDENT SUPERVISION **Supervisor** and **Examiner** of more than 40 M.Sc. Theses.

Faculty Advisor (2022-Present)

Students' Scientific Association, AIHE, Tonekabon, Iran

**REFERENCES** Available on Request.