Iman Azimi

Personal Details

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Work Experience

02/2021 - Present **AI Scientist**, *Silo AI*, Turku, Finland.
- Research in AI solutions for home-based healthcare applications
- Development and deployment (testing and validation) of AI solutions for home-based healthcare applications

01/2020 - Present **Postdoctoral Researcher**, *University of Turku*, Turku, Finland.
- Research and analysis of ubiquitous health monitoring systems enabled by wearable devices
- Research and development of bio-signal quality assessment techniques using machine learning and digital signal processing

04/2019 - Present **University Lecturer/Teacher**, *University of Turku*, Turku, Finland.
- Lecturer of the "Acquisition and Analysis of Biosignals" and "Biosignal Analytics" courses
- Supervisor/co-supervisor of four master students and three Ph.D. students
- Active role in preparation of the teaching material of the courses.

08/2015 - 12/2019 **Ph.D. Research**, *University of Turku*, Turku, Finland.
- Developing personalized data analysis methods using longitudinal and multivariate data
- Designing a personalized IoT-based computing architecture, addressing latency and accuracy in real-time health monitoring systems
- A major contributor to the design and implementation of IoT-based maternal monitoring systems, by which the health conditions of pregnant women were monitored during pregnancy and postpartum

09/2017 - 12/2017 **Visiting Scholar**, *University of California Irvine*, CA. USA.
- Research in IoT-based health deterioration monitoring enabled by Early Warning Score methods

Education

08/2015 - 12/2019 **Doctor of Science (Technology)**, *Information and Communication Technology*, University of Turku, Finland.
Thesis: Personalized Data Analytics for Internet-of-Things-based Health Monitoring

09/2011 - 03/2014 **Master of Science**, *Artificial Intelligence and Robotics*, Sapienza University of Rome, Italy.
Thesis: Point Cloud Segmentation, *GPA: 108/110*

09/2006 - 09/2010 **Bachelor of Science**, *Medical Engineering - Bioelectric*, University of Isfahan, Iran.
Thesis: Interface Design and Signal Processing for Fetal Monitoring, *GPA: 16.55/20*

Accomplishments and Skills

Certificate and Awards

- Ph.D. research excellence award, Nokia Foundation, 2018
- Best paper award, ACM Int. Conf. on Wireless Mobile Communication and Healthcare, 2017

Skills

Programming languages	Python, MATLAB, C++, JavaScript (Basic knowledge), Kotlin (Basic knowledge), and Assembly (Basic knowledge)
Linguistic skills	English (Fluent), Persian (Native), Finnish (Basic), and Italian (Basic)

Other Experience and Training

Programming Experience

- Bio-signal processing (e.g., PPG and ECG) using Python and MATLAB
- Machine learning and deep learning using Python
- Wearable and embedded system using Python and C
- Web and mobile app development using HTML, CSS, and JavaScript
- Mobile app development using Kotlin - Android Studio

Teaching Experience

- Lecturer in Doctoral Training Network in Electronics, Telecommunications and Automation (DELTA) Winter School, Ruka, Finland, 2020
- Tutorial presenter in 32nd International Conference on VLSI Design, New Delhi, India, 2019

Active Role in Projects (Research and Development)

2018 - Present	SLIM: Supporting Lifestyle Change in Obese Pregnant Mothers through Wearable Internet-of-Things http://iot4health.utu.fi/slim/
2017 - 2020	PREVENT: Preterm Birth Prevention in Everyday Settings http://iot4health.utu.fi/prevent/
2017 - 2020	IoCT-CARE: Internet of Cognitive Things for Personalized Healthcare http://iot4health.utu.fi/ioct-care/

Role in Preparation of Funding Applications

- H2020-MSCA-ITN-2020: DIGiTAGE: Digital Biomarker Training Network on Aging
- Academy of Finland: SLIM: Supporting Lifestyle Change in Obese Pregnant Mothers through Wearable Internet-of-Things. (Accepted)
- Academy of Finland: PREVENT: Preterm Birth Prevention in Everyday Settings. (Accepted)

Selected Publications

- Rui C., Azimi I., Sarhaddi F., Niela-Vilén H., Axelin A., Liljeberg P., and Rahmani, A., 2021. Accuracy Assessment of Oura Ring Nocturnal Heart Rate and Heart Rate Variability in Comparison to Electrocardiography: A Comprehensive Analysis in Time and Frequency Domains. JMIR Journal of Medical Internet Research.
- Mehrabadi, M.A., Azimi, I., Sarhaddi, F., Axelin, A., Niela-Vilén, H., Myllyntausta, S., Stenholm, S., Dutt, N., Liljeberg, P. and Rahmani, A., 2020. Sleep Tracking of a Commercially Available Smart Ring and Smartwatch Against Medical-Grade Actigraphy in Everyday Settings: Instrument Validation Study. JMIR mHealth and uHealth, 8(11), p.e20465.
- Iman Azimi, Olugbenga Oti, Sina Labbaf, Hannakaisa Niela-Vilén, Anna Axelin, Nikil Dutt, Pasi Liljeberg, and Amir M. Rahmani, "Personalized Maternal Sleep Quality Assessment: An Objective IoT-based Longitudinal Study," IEEE Access, 7:93433-93447, 2019.

The complete list of publications can be found here: https://users.utu.fi/imaazi/publications/