Parvaneh JANBAKHSHI

PERSONAL DATA

NATIONALITY AND DATE OF BIRTH:	Iranian | 06 August 1991
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EDUCATION

2018–current Doctor of Philosophy (PhD) in ELECTRICAL ENGINEERING
École Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland
GPA: 5.5/6, 12 credits

2014–2016 Master of Science in BIOMEDICAL ENGINEERING (BIOELECRTICS)
Sharif University of Technology, Tehran, Iran
GPA: 4/4 (18.88/20), 29 credits–ranked 2^{nd}

2009–2014 Bachelor of Science in BIOMEDICAL ENGINEERING (BIOELECRTICS)
Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran
GPA: 3.70/4 (17.27/20), 140 credits

RESEARCH EXPERIENCE

Doctoral Researcher in Idiap Research Institute, Martigny, Switzerland
- Thesis: Automatic intelligibility assessment, detection, and classification of pathological speech
  - Supervisor: Prof. Bourlard, current
- Relevant coursework: Deep Learning, Optimization for Machine Learning, Statistical Sequence Processing

Researcher of Cognitive Neurobiology Laboratory in School of Cognitive Sciences Institute for Research in Fundamental Sciences (IPM), Tehran, Iran:
- Project: Investigating the phase amplitude coupling in the middle temporal visual area of rhesus monkeys
  - Supervisors: Dr. M. R. Daliri and Dr. M. Esghaei

Master of Science Thesis in Sharif University of Technology, Tehran, Iran:
- Thesis: Extraction of respiratory information from ECG and its application for sleep apnea detection
  - Supervisor: Prof. Shamsollahi, 2016
- Relevant coursework: Pattern Recognition, Biological Signal Processing, Fuzzy Systems

Bachelor of Science Thesis in Amirkabir University of Technology, Tehran, Iran:
- Thesis: Designing and implementing an automatic neuromuscular electro-stimulation device to prevent diseases such as deep vein thrombosis and varicose veins
  - Supervisor: Dr. Maleki, 2014

Research Interests

- Speech and Audio Signal Processing (for clinical applications)
- Machine Learning
- Biological Signal Processing
- Statistical Learning

Publications

- **Janbakhshi, P.**, Kodrasi, I., Bourlard, H., "Automatic dysarthric speech detection exploiting pairwise distance-based convolutional neural networks", *submitted* to ICASSP 2021.
- **Janbakhshi, P.**, Kodrasi, I., Bourlard, H., "Subspace-based learning for automatic dysarthric speech detection", Signal Processing Letters, 2020, *In Press*.
- **Janbakhshi, P.**, Kodrasi, I., Bourlard, H., "Automatic pathological speech intelligibility assessment exploiting subspace-based analyses," IEEE/ACM Transactions on Audio, Speech, and Language Processing, 2020.
- **Janbakhshi, P.**, Kodrasi, I., Bourlard, H., "Synthetic speech references for automatic pathological speech intelligibility assessment", in Proceedings of the ICASSP, 2020.
- **Janbakhshi, P.**, Kodrasi, I., Bourlard, H., "Spectral subspace analysis for automatic assessment of pathological speech intelligibility,", in Proceedings of the INTERSPEECH, 2019.
- **Janbakhshi, P.**, Kodrasi, I., Bourlard, H., "Pathological speech intelligibility assessment based on the short-time objective intelligibility measure", in Proceedings the ICASSP, 2019.
- **Janbakhshi, P.**, Shamsollahi, M. B., "Sleep apnea detection from single-lead ECG using features based on ECG-derived respiration (EDR) signals", IRBM, 2018.
- **Janbakhshi, P.**, Shamsollahi, M. B., "ECG-derived respiration estimation from single-lead ECG using gaussian process and phase space reconstruction methods", Biomedical Signal Processing and Control, 2018.
- Maleki, A., **Janbakhshi, P.**, and Semnan University Science and Technology Park, "Intelligent device for preventing varicose and deep vein thrombosis based on electrical stimulation", Patented in Iran, Patent No. 83492, 2014

Honors & Rewards

- **Ranked 2** in Master of Science, Bioelectric Major, Electrical Engineering Department, Sharif University of Technology (2016)
- **Ranked 50** among more than 15000 participants in Nationwide University Entrance Exam in Master of Science, Biomedical Engineering (2014)
- Bachelor of Science thesis was awarded by the university as the **best BSc project** of the year in Bioelectric Engineering.

Computer Skills

Technical Softwares:	Pytorch, Matlab (Simulink, programming, GUI), Praat
Programming languages:	C^{++}, Python