

Shiva Shabro |

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Objective

Highly motivated Biomedical Engineer with more than two years of solid research and hands on experience in neuroimaging and medical image analysis. Strong scientific programming skills, study design, data collection and analysis. Familiar with machine learning frameworks such as keras and pytorch. Seeking a position as a biomedical engineering in medical devices and healthcare industry.

Education

University of Manitoba

M.Sc in Biomedical Engineering

Sep 2017 – Oct 2019

Thesis: Age-related changes of the avian brain measured by FDG-PET imaging

Advisors: Profs. Andrew L. Goertzen - Debbie M. Kelly

Imam Reza International University

B.Sc in Biomedical Engineering, Biomedical Engineering major

Sep 2011 – Sep 2015

Thesis: Simulation of neurostimulation device for epilepsy seizures

Experiences

Research Assistant

University of Manitoba

PET Imaging lab

Sep 2017 - Oct 2019

- Conducting research in the field of neuroimaging and age-related changes in the avian brain
- FDG-PET brain imaging of small animal
- Responsible for PET data acquisition, analyzing, and interpreting functional brain images of the avian brain
- Working with MRI brain atlas
- Data collection from small animal MicroPET system
- Experience with a scripting language (Python)
- Working on NIFTI, DICOM image formats

Research Assistant

University of Manitoba

Comparative Cognition lab

Sep 2017 - Oct 2019

- Performing an age-related behavioral study on the avian brain
- Experience with experimental design
- Behavioral analysis
- Statistical analysis & Data visualization
- Mentoring and working with volunteers and summer students in the lab

Research Assistant

Ferdowsi University of Mashhad

Robotics lab

Oct 2016 - Jun 2017

- Providing quantitative and qualitative insights on commercial type of rehabilitation exoskeleton (RE)
- Reviewing and providing summary on commercial and non-commercial type of RE
- Writing scientific reports and documentation
- Biomedical Engineer consultant in designing RE
- Helping in EEG signal acquisitions from participants for early movement detection
- Defining short-term and long-term goals and developing research proposals on RE

Customer Service Representative

Melvari Holding Company

Biomedical Engineering Sector

Oct 2015 - Oct 2016

- Answering customer inquiries regarding products and pricing
- Educating customers and potential customers who had questions about products
- Promoting and selling products
- Assisting in training the customers on using products and equipment
- Writing SOPs and documents for appropriate use and handling of hospital equipment

Intern

Biomedical Engineering Department

Javad Alaeme Hospital

June 2014 - Dec 2014

- Hospital equipment quality check & maintenance
- Safety Manual creation and revisions
- Designing Planned Maintenance forms for equipment and checking equipment
- Assisting in training personnel on using hospital equipment
- Writing SOPs and documents for appropriate use and handling of hospital equipment

Computer skills

Programming:

Python, C++, MATLAB

Softwares:

Statistical Parametric Mapping toolbox (SPM), ITK, FSL, MicroPET Manager

ASIPro VM, MRIcro, Amide, Jamovi, SPSS, Mathematica, NetLogo, Orchard Hspice/Pspice Designer software

CodeVisionAVR, Microsoft Excel

Technical Skills

- PET brain imaging and data collection
- Assisting and writing research proposals and preparation of grant applications
- General knowledge of ISO 13485
- Experience in preparation of reports, presentations, and manuscripts.
- Maintain research and equipment
- Conduct literature searches and retrieve articles
- rehabilitation robots
- Check data for accuracy and completeness; score data; enter data; including data re-entry; data cleaning
- Basic knowledge of new product development process
- Write and Review technical data, documents, SOPs
- Customer Service

Certificates

- The Data Science Course 2019: Complete Data Science Bootcamp (Udemy Course Certificate) in progress
- Deep Learning A-Z: Hands-On Artificial Neural Networks (Udemy Course Certificate) in progress
- Neural Networks and Deep Learning (Coursera Course Certificate) 2019
- Introduction to Software Product Management (Coursera Course Certificate) 2019
- Python Bootcamp: Go from zero to hero in Python 3 (Udemy Course Certificate) 2019
- Animal user training course, University of Manitoba 2017

Awards

- Awarded Manitoba Graduate Scholarship (MGS), Province of Manitoba 2018
- Awarded University of Manitoba Graduate Scholarship (UMGF) 2018
- International graduate student entrance scholarship (IGESS), UManitoba 2017
- Merit-based Admission Offer to the M. Sc. program at Electrical Engineering Department Imam Reza International University 2015
- Ranked **2nd** highest GPA among all undergraduate students of Biomedical Engineering 2014

Professional Service and Activities

- Radiation safety workshop, orientation and training, University of Manitoba 2017
- Environmental health and WHMIS training, University of Manitoba 2017
- Radiation safety workshop, orientation and training, University of Manitoba 2017
- ECG Operation Workshop, Imam Reza International University 2014

Conference Presentation

- Poster presentation for Manitoba Neuroscience Network ([MNN](#)), University of Winnipeg Jun 2019

Publications

H. Nezhad, R.Keshvari, S.Shabro, and H.Moghaddas. Compare the accuracy of neural networks mlp and rbf in the diagnosis of epilepsy. In *National Conference on Electrical Engineering and Sustainable Development with a focus on Advances in Electrical Engineering*, 2014.