Shayan Monabbati

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Education

Case Western Reserve University, Cleveland, Ohio

PhD, Systems & Control Engineering (2018 – Present)
Advised by Kenneth Loparo & Anant Madabhushi
Research Interests: Digital Pathology, Medical Image Processing, Machine Learning, Biomedical Signal Processing

York University, Toronto

B.Eng., Honours Mechanical Engineering (2014 – 2018)

KEY QUALIFICATIONS AND SKILLS

Technical

Modeling and Analysis: ANSYS, SolidWorks, Zemax OpticStudio
Programming: MATLAB, R, Python, Torch, Java, Android Studio, LabVIEW, HTML, LaTeX
Manufacturing methods: Rapid Prototyping, FDM, CNC

Soft Skills

- Fast learner, motivated, responsible, punctual, systematic, organized and perseverant
- Excellent leadership, problem solving and communication skills;
- Able to communicate and listen effectively to others and express own ideas
- Action-oriented, innovative and flexible individual with a proven track record of initiating and managing multiple tasks
- Excels at working under pressure and prioritizing activities to meet deadlines
- Excellent written, oral communication, presentation, and interpersonal skills
- Team player with solid coordination skills to organize seminars, workshops, and conferences from concept to completion

PUBLICATIONS

Adam Noel, **Shayan Monabbati**, Dimitrios Makrakis, Andrew Eckford, *"Timing Control of Single Neuron Spikes with Optogenetic Stimulation"*, 31 October 2017. IEEE International Conference on Communications (IEEE ICC 2018)

TEACHING

Lab Development – Signals & Systems

Course Instructor – Control Engineering Laboratory

PROFESSIONAL EXPERIENCE

Research Assistant at Eckford Lab, York University April 2017 – Dec 2017

- Created an optogenetic model for precise control of neural spike trains
- Expanding current publication to be submitted to IEEE Biomedical Transactions

Research Assistant at Mofrad Lab, UC Berkeley July 2016 – December 2016

- Studied the structural and functional effect of fluorophore tagging to focal adhesion molecules

Mechanical Eng Research Assistant, York University May 2015 – September 2015

- Designed and manufactured a sound isolation system for a cryogenic freezer mill
- Synthesized polymers using cryogenic grinding and compression molding
- Created a parfocalization algorithm for variable focal length optical system
- Applied in light sheet microscopy used for cancer screening

NOTABLE ACHIEVEMENTS

Scholarships
Departmental TA Fellowship ($47K USD)
York University Entrance Award ($10K CAD)
Lassonde Undergraduate Research Award ($8K CAD)

Test Scores
GRE Quant: 164/170 (~87th percentile)

Certificates
TCPS 2: CORE Research Ethics Board Certificate
WHMIS II, Compressed gas, Chemical Handling and Volatile Room, Biosafety and Awareness
Royal Conservatory of Music Grade 9 Practical Exam

Societies
Founder & Student Section Chair of ASME YorkU Chapter
Executive Member of ASME Ontario Section
IEEE ComSoc Member
Lifesaving Society: NLS, Instructor's, Standard First Aid + CPR-C

INTERESTS AND VOLUNTEERING

- IEEE CWRU Member January 2018 – Present
- VP Events & Tutor @ ICanStem Foundation August 2017 – August 2018
- Co-founder of Yoga @ Lassonde January 2016 – Present