

Md Yousuf Harun

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EDUCATION

Rochester Institute of Technology NY, USA
PhD in Imaging Science Aug. 2020-May 2025

- **Adviser:** Dr. Christopher Kanan
- GPA: 3.84/4.0

University of Hawaii HI, USA
MS (Thesis) in Electrical Engineering Aug. 2018-May 2020

- **Advisers:** Dr. Aaron Ohta and Dr. Il Yong Chun
- GPA: 3.95/4.0

Khulna University of Engineering & Technology Khulna, Bangladesh
BS (Hons.) in Electrical & Electronic Engineering Feb. 2012-May 2016

- **Adviser:** Dr. Mahbub Hasan
- GPA: 3.57/4.0

EXPERIENCES

♦ **Center for Imaging Science, Rochester Institute of Technology** NY, USA
Graduate Research Assistant May. 2021-Present

- Conduct research in continual learning for edge device applications

Research Trainee in NSF AWARE-AI Jan. 2022-Present

- Develop online machine learning system for robotics

Graduate Teaching Assistant Aug. 2020-May 2021

- Courses: Imaging Science Fundamentals, Fourier Method for Imaging

♦ **Department of Electrical Engineering, University of Hawaii** HI, USA
Graduate Research Assistant Aug. 2019-May 2020

- Conduct research in medical image segmentation and magnetic resonance image (MRI) reconstruction

Graduate Teaching Assistant Aug. 2018-Dec. 2019

- Courses: Communication Systems Lab, Basic Circuit Lab, Programming Language (C)

♦ **Dutch-Bangla Bank Limited** Dhaka, Bangladesh
Assistant Engineer Jun. 2017-Nov. 2017

- Supervise electrical substation installation, operation, and maintenance

RESEARCH PROJECTS

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- **PhD Research:** Efficient Continual Learning for Embedded Devices
 - **MS Research:** Medical Image Segmentation of Cellular Images using Deep Learning

TECHNICAL SKILLS

- **Software:** MATLAB, AutoCAD, COMSOL
- **Programming Languages:** C, C++, Python • **Deep Learning Framework:** PyTorch
- **Scientific Computing Packages:** Numpy, Scipy, Scikit-learn, Pandas
- **OS & Applications:** Linux, MS Office, Git, Bash Scripting, LaTeX, Typing Speed: 50 wpm

AWARDS

- **Awards:** 1) UHM Dept. of EE Research Excellence Award-2020, 2) UHM Dept. of EE Teaching Excellence Award-2019, 3) Bangladesh Government Merit Scholarship in Higher Secondary Certificate Examination-2011, 4) Bangladesh Government Merit Scholarship in Secondary School Certificate Examination-2009
- **Travel Grants:** 1) IEEE NANOMED Conference-2019, 2) Bangladesh Sweden Trust Fund-2018

PUBLICATIONS

Pre-Prints:

- **M.Y. Harun** and C. Kanan. Overcoming the Stability Gap in Continual Learning. *arXiv*, 2023
- **M.Y. Harun**, J. Gallardo, T.L. Hayes, R. Kemker, and C. Kanan. SIESTA: Efficient Online Continual Learning with Sleep. *arXiv*, 2023

Journal Paper:

- T.T. Huang, T. Kosasa, B. Walker, C. Arnett, C.T. Huang, C. Yin, **M.Y. Harun**, H.J. Ahn, and A. Ohta. Deep Learning Neural Network Analysis of Human Blastocyst Analysis from Time-lapse Image Files. *In: Reproductive BioMedicine Online*, 2021

Conference Papers:

- **M.Y. Harun**, J. Gallardo, T.L. Hayes, and C. Kanan. How Efficient Are Today's Continual Learning Algorithms? *In: CVPR-W: CLVision*, 2023
- **M.Y. Harun**, M.A. Rahman, J. Mellinger, W. Chang, T. Huang, B. Walker, K. Hori, and A. Ohta. Image Segmentation of Zona-Ablated Human Blastocysts. *In: Proc. IEEE Intl. Conference on Nano/Molecular Medicine & Engineering*, 2019
- **M.Y. Harun**, T. Huang, and A. Ohta. Inner Cell Mass and Trophectoderm Segmentation in Human Blastocyst Images using Deep Neural Network. *In: Proc. IEEE Intl. Conference on Nano/Molecular Medicine & Engineering*, 2019

Poster:

- T. Huang, B. Walker, **M.Y. Harun**, M.A. Rahman, J. Mellinger, W. Chang, and A. Ohta. Automated Computer Analysis of Human Blastocyst Expansion from Embryoscope Time-Lapse Image Files. *In: American Society for Reproductive Medicine*, 2019

SOFTWARE

- EmbryoSoft: Segments human embryo cells to assist doctors at Pacific IVF Institute, HI

SERVICES

- Reviewer: IEEE International Conference on Robotics and Automation (ICRA), 2021
- Mentor: Native Hawaiian Science and Engineering Mentorship Program, UHM, 2019

REFERENCES

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