Md Mahfuzur Rahman Siddiquee

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Education

Arizona State University — Tempe, AZ, USA
Ph.D. in Computer Science, GPA: 4.00/4.00 — 2017–Current
Research Area: Medical Imaging, Computer Vision, Deep Learning

North South University — Dhaka, BGD
B.S. in Computer Science and Engineering, GPA: 3.70/4.00 — 2011–2015

Experience

Graduate Research/Teaching Assistant — Tempe, AZ, USA
Arizona State University — August 2017–Current

Applied Research Intern — Santa Clara, CA, USA
NVIDIA Inc. — May 2021–August 2021

Software Developer — Rome, ITA
Harpa Italia s.r.l — February 2016–July 2017

Selected Publications

[1] **M. M. Rahman Siddiquee**, Z. Zhou, N. Tajbakhsh, R. Feng, M. B. Gotway, Y. Bengio, and J. Liang, "Learning fixed points in generative adversarial networks: From image-to-image translation to disease detection and localization", in *Proceedings of the IEEE International Conference on Computer Vision*, 2019, pp. 191–200.

[2] Z. Zhou, **M. M. Rahman Siddiquee**, N. Tajbakhsh, and J. Liang, "Unet++: Redesigning skip connections to exploit multiscale features in image segmentation", *IEEE transactions on medical imaging*, vol. 39, no. 6, pp. 1856–1867, 2019.

[3] Z. Zhou, V. Sodha, **M. M. Rahman Siddiquee**, R. Feng, N. Tajbakhsh, M. B. Gotway, and J. Liang, "Models genesis: Generic autodidactic models for 3d medical image analysis", in *International Conference on Medical Image Computing and Computer-Assisted Intervention*, Springer, 2019, 384–393. [**Young Scientist Award, Best Paper Award**].

[4] Z. Zhou, **M. M. Rahman Siddiquee**, N. Tajbakhsh, and J. Liang, "Unet++: A nested u-net architecture for medical image segmentation", in *Deep Learning in Medical Image Analysis and Multimodal Learning for Clinical Decision Support*, Springer, 2018, pp. 3–11.

Patents (Under Review)

[1] J. Liang, Z. Zhou, **M. M. Rahman Siddiquee**, and N. Tajbakhsh, "Systems, methods, and apparatuses for implementing a multi-resolution neural network for use with imaging intensive applications including medical imaging", US Patent App. 16/556,130, Mar. 2020.

Teaching

- **Instructor** at Arizona State University — Fall 2020, Fall 2019
  Introduction to Engineering (FSE 100)
- **Teaching Assistant** at Arizona State University — Fall 2020
  Introduction to Programming (CSE 110)
- **Instructor** at Arizona State University — Summer 2020
  Introduction to Programming (CSE 110)
- **Instructor** at Arizona State University — Spring 2020
  CS Capstone Project I (CSE 485)

Skills

- **Programming:** Python, C/C++, Java, Javascript, PHP, Bash
- **Deep Learning:** Pytorch, Keras, Tensorflow, Caffe
- **Web Development:** HTML, CSS, Node.js
- **Database:** MySQL, MongoDB

Languages

- **Bangla:** native proficiency
- **English:** full professional proficiency
- **Italian:** limited working proficiency

Recent Awards

- 1^{st} Place in Fetal Brain Tissue Annotation and Segmentation Challenge (FeTA), MICCAI 2021 — October 2021
- 4^{th} Place in RSNA-ASNR-MICCAI Brain Tumor Segmentation (BraTS) Challenge 2021 — November 2021
- Engineering Graduate Fellowship by Ira A. Fulton School of Engineering — May 2020
- Conference Travel Grant by Graduate and Professional Student Association, Arizona State University — April 2020
- Conference Travel Grant by International Conference on Computer Vision — October 2019
- CIDSE Conference Travel Award by Arizona State University — October 2019
- Conference Travel Grant by Graduate and Professional Student Association, Arizona State University — August 2019
- Conference Travel Grant by Graduate and Professional Student Association, Arizona State University — March 2019
- Outstanding Contribution in Reviewing by Journal of Biomedical Informatics — June 2018
- 2^{nd} Prize in the Annual Student Poster Competition by BMI/BMD Symposium, Arizona State University — April 2018

Services

- Reviewer at IEEE Transaction on Medical Imaging
- Reviewer at Journal of Biomedical Informatics
- Reviewer at Current Opinion in Biomedical Engineering
- Reviewer at Winter Conference on Applications of Computer Vision, 2020
- Travel and Research Grant Reviewer at Graduate and Professional Student Association, Arizona State University Fall 2018–Summer 2019