Sourav Mishra

CONTACT

Ph.D Student, Expected Graduation Jan 2021
Yamasaki Lab, The University of Tokyo
7-3-1 Hongo, Bunkyo, Tokyo 113-8654
Website : http://souravmishra.net

@ sourav@ay-lab.org
☎ +81 (03) 5841-6761

INTERESTS

Optimization in ML, Interpretability & explainability, Model robustness

EDUCATION

University of Tokyo, Japan. Sep. 2017 – Feb. 2021*
Ph.D., Department of Information & Communication Engineering
Advisor: Toshihiko Yamasaki
Thesis: Rapid & robust learning for homogeneous image data

Virginia Tech, Blacksburg VA, US Aug. 2013 - Aug. 2015
M.S., Department of Biomedical Engineering & Applied Mathematics
GPA: 3.81/4.00 *Advisor*: Robert A. Kraft
Thesis: Investigation and Analysis of HFpEF with Magnetic Resonance

Virginia Tech, Blacksburg VA, US Aug. 2010 - May. 2013
M.S., Department of Electrical & Computer Engineering
GPA: 3.82/4.00 *Advisor*: Ge Wang
Thesis: Collimator Width Optimization in X-Ray Luminescent CT

Manipal University, Manipal India Jul. 2005 - Aug. 2009
B.S., Department of Electronics/Biomedical Engineering
GPA: 8.70/10

JOURNAL

S. Mishra, S. Chaudhary, H. Imaizumi, T. Yamasaki, Robustness of Deep Learning Models in Dermatological Evaluation: A Critical Appraisal [Accepted, To appear in IEICE Trans. Information and Systems]

S. Mishra, R. Kappiyoor, Collimator Width Optimization in X-Ray Luminescent Computed Tomography (XLCT) with Selective Excitation Scheme, J. Medical Imaging & Health Informatics, Vol. 4 (5), 2014, pp. 681-686.

S. Mishra, K.S. Sharma, S.J. Lee, E.J. Fox, G. Wang, SLATE: Virtualizing Multiscale CT, J. X-ray Science & Technology, Vol. 20 (2), 2012, pp. 239-248.

S. Mishra, K.S. Sharma, S.J. Lee, E.J. Fox, G. Wang, Kinematics-coordinated walking pattern based on embedded controls, J. Medical Engineering & Technology, Vol. 34 (5-6), 2010, pp. 329-334.

CONFERENCE & WORKSHOPS

S Mishra, S. Chaudhary, H. Imaizumi, T. Yamasaki, Evaluating Robustness of Deep learning Methods in Dermatological Workflow, IEEE Conference on Multimedia Information Processing and Retrieval (MIPR), 2021 [Under Review]

S Mishra, S. Chaudhary, H. Imaizumi, T. Yamasaki, Assessing Robustness of Deep learning methods in dermatological evaluation ACM Conference on Health Inference and Learning (CHIL) Workshop, 2020 [Selected for Oral Spotlight].

S Mishra, H. Imaizumi, T. Yamasaki, Interpreting Fine-Grained Dermatological Classification by Deep Learning Conference on Computer Vision and Pattern Recognition (CVPR), ISICW 2019 [Selected for Oral].

S Mishra, H. Imaizumi, T. Yamasaki, Improving image classifiers for small datasets by learning rate adaptations, Machine Vision Applications 2019 [Selected for Oral, Honorable mention].

A Bhan, G Vyas, S Mishra, **S Mishra**, P Pandey Detection and Grading Severity of Caries in Dental X-ray Images, pp. 375-378, International Conference on Micro-Electronics and Telecommunication Engineering, 2016

S Mishra, RS Rekhi, A Sharma, G Vyas Segmentation of Musculoskeletal Tissues with Minimal Human Intervention, pp. 45-53, ICT for Sustainable Development (ICT4SD), 2016

P Rai, V Golchha, A Srivastava, G Vyas, **S Mishra** Automatic classification of bird species using audio feature extraction and SVMs, pp. 1-5, International Conference on Inventive Computation Technologies (ICICT), 2016.

Awards and Achievements

Microsoft Research Visiting Fellow, 2018

ITE Japan, Best Student research paper award (2019)

MEXT Scholarship, Government of Japan (2017-2020)

Bradley Fellowship, Virginia Tech (2011)

Awardee, Indian National Physics Olympiad, (2004)

Work experience

exMedio Inc., Japan — Oct 2017 – Present
Research Intern
Developing and deploying deep learning based solutions for healthcare applications.

Amity University, India — Sep 2015-Jun 2016
Instructor
Worked as undergraduate instructor for ECE department. Additionally, engaged in making grant proposals.

Computer Skills

Programming: C, C++ (8 years), Python (7 years), MATLAB (10 years)

ML: PyTorch & Keras (4 years)

Referees

- Dr. Toshihiko Yamasaki
  Associate Professor,
  Faculty of I.S.T
  The University of Tokyo, Japan
- Dr. Kiyoharu Aizawa
  Professor,
  Faculty of I.S.T
  The University of Tokyo, Japan