Subhajit Maity

Associate Research Engineer, Technology Innovation Hub, Indian Statistical Institute, Kolkata

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Education

Jalpaiguri Government Engineering College (Autonomous)   *Jalpaiguri, India*
B.Tech. in Electronics & Communication Engineering   Aug. 2014 - Dec. 2018
GPA: 8.47/10

Experiences

Technology Innovation Hub, Indian Statistical Institute, Kolkata   *Kolkata, India*
Associate Research Engineer   Jun. 2022 - Present
Working on Object Detection, Speed Estimation from video feed, License Plate recognition, Scene Text Recognition

Tata Consultancy Services Limited   *Kolkata, India*
System Engineer   Nov. 2018 - Jan. 2021
Worked as developer for Oracle Fusion Middleware technologies (SOA Suite, OSB) and as administrator for SSO prodcts (Oracle IAM, OAM) along with OCI cloud administration and Linux administration

National Institute of Technology, Silchar   *Silchar, India*
Research Intern   Jun. 2017 - Jul. 2017
Worked on classical image processing, natural language processing, Bayesian classifier and image caption generation.

Technical Skills

Programming	Python, Matlab, Java
Professional Libraries	PyTorch, Numpy, Matplotlib, Seaborn, Pandas, Keras, Tensorflow
Documentation & Typesetting	MS Office, LaTeX, Beamer
Languages	Bengali (Native), English (Professional Proficiency)

Publications

[1] **S. Maity***, S. Biswas*, S. Manna, et al. "SelfDocSeg: A Self-Supervised vision-based Approach towards Document Segmentation," *International Conference on Document Analysis and Recognition (ICDAR)*, 2023. [Link]

[2] **S. Maity**, S. Sarkar, A. Tapadar, et al. "Fault area detection in leaf diseases using k-means clustering," *International Conference on Trends in Electronics and Informatics*, 1538-1542, 2018. [Link]

[3] **S. Maity**, R. K. Karsh. "Image Hash Minimization for Tamper Detection," *International Conference on Advances in Pattern Recognition (ICAPR)*, 1-16, 2017. [Link]

Research Projects

Knowledge Distillation in Documents   *Barcelona, Spain*
Exploring Knowledge Distillation, Document Segmentation, Document Classification   May. 2023 - Present
Collaborator: Sanket Biswas, Computer Vision Center, Universitat Autònoma de Barcelona & Jordy Van Landeghem, KU Leuven

Self-Supervised Document Layout Analysis   *Barcelona, Spain*
Explored Self-Supervised Learning, Document Segmentation   Jan. 2023 - Feb. 2023
Collaborator: Sanket Biswas & Prof. Josep Lladós, Computer Vision Center, Universitat Autònoma de Barcelona

Self-Supervised Object Detection   *Kolkata, India*
Explored Object Detection, Self-Supervised Learning, Meta Learning strategies   Aug. 2022 - Mar. 2023
Supervisor: Prof. Umapada Pal, CVPR Unit, Indian Statistical Institite, Kolkata & Prof. Saumik Bhattacharya, Dept. of Electronics and Electrical Communication Engineering, Indian Institute of Technology, Kharagpur

Image Forgery Localization   *Silchar, India*
Explored Image Forgery Detection using Auto-encoders   Jan. 2022 - Jun. 2022
Mentor: Prof. R. K. Karsh, Dept. of ECE, National Institute of Technology, Silchar

Fine Grained Sketch Based Image Retrieval *Guildford, UK*

Explored Siamese Networs, Knowledge Distillation, Gradient Consensus, Reinforcement Learning for Sketch based
Image Retrieval
Aug. 2021 - Jul. 2022

Mentor: Ayan K. Bhunia, SketchX, CVSSP, University of Surrey

Human Action Recognition for Activity Monitoring *Kolkata, India*

Explored Pose Estimation, Action Recognition, Object Detection *Jan. 2021 - Aug. 2021*

Supervisor: Prof. Swagata Mandal, Dept. of ECE, Jalpaiguri Govt. Engineering College & Dr. Satyabrata Maity, Calcutta University

Image Forgery Detection *Silchar, India*

Explored Image Forgery Detection, Unsupervised learning, Harris Corner Detector, SIFT, SURF *Jul. 2017 - Dec. 2017*

Mentor: Prof. R. K. Karsh, Dept. of ECE, National Institute of Technology, Silchar

Leaf Disease Detection *Jalpaiguri, India*

Explored Semantic Segmentation using k-Means Clustering *May. 2017 - Jan. 2018*

Collaborator: Sanket Biswas, Computer Vision Center, Universitat Autònoma de Barcelona & Avinaba Tapadar, Qualcomm India Pvt. Ltd.

Awards and Honors

Mar. 2023   **Participation**: Attended "G20 Expo, 2nd Education Working Group Metting, G20 Summit 2023" *Amritsar, India*

Volunteer Services

International Journal of Advances in Applied Sciences (IJAAS) *http://ijaas.iaescore.com*

Peer Reviwer *Oct. 2021*

9th International Conference on Advances in Pattern Recognition *Bangalore, India*

Presentation / Attendance *Dec. 2017*