Wrik Bhadra

Email: wrik18027@iiitd.ac.in   **Homepage:** https://mavewrik.github.io/

Research interests	Computer Vision, Machine Learning, Multi-modal Learning

Employment	**Rakuten India**	Bangalore, India
	Software Engineer - Machine Learning	Aug 2021 – present
	Software Engineer	Aug 2020 – Jul 2021

Education	**IIIT Delhi**	New Delhi, India
	M.Tech. in Computer Science and Engineering	2018 – 2020
	Techno India University, West Bengal	Kolkata, India
	B.Tech. in Computer Science and Engineering	2014 – 2018

Papers / Patents

Antenna Damage Detection - Bending Estimation (Patent)   2021
Nithish Divakar, Wrik Bhadra
Patent drafting in final stages on behalf of Rakuten Mobile for a vision-based system that estimates bend (structural damage) in cellular antenna towers.

Generalized Prediction of Hemodynamic Shock in Intensive Care Units
Aditya Nagori, Pradeep Singh, Sameena Firdos, Vanshika Vats, Arushi Gupta, Harsh Bandhey, Anushtha Kalia, Arjun Sharma, Prakriti Ailavadi, Raghav Awasthi, Wrik Bhadra, Ayushmaan Kaul, Rakesh Lodha, Tavpritesh Sethi
Intensive Care Medicine (Springer journal), 2021 [pending review]
medRxiv 2021.01.07.21249121 link

Internships

Rakuten India   Jun 2020 – Jul 2020
Software Engineering intern
Worked on full-stack development (Go backend, Vue.js frontend) of an Application Performance Monitoring system.

Rakuten Ready   Jan 2020 – May 2020
Research intern
Studied the feasibility of identifying location types by learning location embeddings with triplet-loss networks as a multi-label classification problem.

Selected projects

Distracted Driver Detection   Feb 2019 – Apr 2019
Supervisor: Prof. Mayank Vatsa, IIIT Delhi   Team size: 3
Given dashboard images of drivers, our system aims to classify the driver on the basis of 10 predefined actions such as texting, speaking on the phone, reaching backwards etc. to detect distraction and alert them.
Project poster / GitHub repo / Kaggle link

	Enhanced Pattern Unlocking in Smartphones Sep 2018 – Nov 2018
	Supervisor: Prof. Mayank Vatsa, IIIT Delhi Team size: 3
	To overcome smudge attacks and over-the-shoulder snooping in swipe-based unlocking mechanism in smartphones, our system considers the actual haptic gesture and speed for authentication.
	Project report / GitHub repo
Skills	**Programming languages:** Python, MATLAB, Java, C/C++
	Web/Application development: Python-Flask, Vue JS, MongoDB, SQL
	Machine Learning: PyTorch, TensorFlow, scikit-learn
	Tools: Bash, LaTex, Git, Jupyter Notebook/Lab, Docker
Relevant coursework	Computer Vision, Digital Image Processing, Machine Learning, Calculus, Probability & Statistics, Linear Algebra, Computer Architecture, Information Retrieval, Machine Learning in Biomedical Applications
Mentoring & Interviewing experience	**Rakuten India** Jun 2021 & Mar 2021
	Conducted technical interviews for a prospective full-time and three intern candidates for a separate business unit.
	Rakuten India Nov 2020 – Jan 2021
	Mentored a CS undergrad intern on a project involving application of image processing techniques.
Honors, Awards & Recognition	**Rakathon - Rakuten India's annual hackathon** 2021
	Selected in the top 110 teams out of 7500+ submissions under the AI - Healthcare category
	Ministry of HRD, Govt. of India 2014
	Letter of congratulation for performance in AISSCE 2014 (top 0.1% candidates across the country)
Volunteering	**Coursera** Jul 2016 – Present
	Course beta-tester
Hobbies	Reading experiential books
	Playing chess