

Wrik Bhadra

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Homepage: <https://mavewrik.github.io/>

Research interests	Computer Vision, Machine Learning, Multi-modal Learning	
Employment	Rakuten India <i>Software Engineer - Machine Learning</i> <i>Software Engineer</i>	Bangalore, India Aug 2021 – present Aug 2020 – Jul 2021
Education	IIIT Delhi <i>M.Tech. in Computer Science and Engineering</i>	New Delhi, India 2018 – 2020
	Techno India University, West Bengal <i>B.Tech. in Computer Science and Engineering</i>	Kolkata, India 2014 – 2018
Papers / Patents	Antenna Damage Detection - Bending Estimation (Patent) 2021 <i>Nithish Divakar, Wrik Bhadra</i> 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 <i>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</i> Intensive Care Medicine (Springer journal), 2021 [pending review] medRxiv preprint link	
Internships	Rakuten India <i>Software Engineering intern</i> Worked on full-stack development (Go backend, Vue.js frontend) of an Application Performance Monitoring system.	Jun 2020 – Jul 2020
	Rakuten Ready <i>Research intern</i> Studied the feasibility of identifying location types by learning location embeddings with triplet-loss networks as a multi-label classification problem.	Jan 2020 – May 2020
Selected projects	Distracted Driver Detection <i>Supervisor: Prof. Mayank Vatsa, IIIT Delhi</i> 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. Kaggle challenge link	Feb 2019 – Apr 2019 Team size: 3

	Enhanced Pattern Unlocking in Smartphones Sep 2018 – Nov 2018 <i>Supervisor: Prof. Mayank Vatsa, IIIT Delhi</i> 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.
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, Linear Algebra, Computer Architecture, Information Retrieval, Machine Learning in Biomedical Applications
Mentoring & Interviewing experience	Rakuten India Jun 2021 & Mar 2021 <i>Conducted technical interviews for a prospective full-time and three intern candidates for a separate business unit.</i> Rakuten India Nov 2020 – Jan 2021 <i>Mentored a CS undergrad intern on a project involving application of image processing techniques.</i>
Honors, Awards & Recognition	Rakathon - Rakuten India's annual hackathon 2021 <i>Selected in the top 110 teams out of 7500+ submissions under the AI - Healthcare category</i> Ministry of HRD, Govt. of India 2014 <i>Letter of congratulation for performance in AISSCE 2014 (top 0.1% candidates across the country)</i>
Volunteering	Coursera Jul 2016 – Present <i>Course beta-tester</i>
Hobbies	Reading experiential books Playing chess