

Wrik Bhadra

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

Research interests	Computer Vision, Machine Learning, Multi-modal Learning	
Employment	Rakuten India	Bangalore, India
	<i>Software Engineer II - Machine Learning</i>	Dec 2021 – present
	<i>Software Engineer I - Machine Learning</i>	Aug 2021 – Nov 2021
	<i>Software Engineer I</i>	Aug 2020 – Jul 2021
Education	IIIT Delhi	New Delhi, India
	<i>M.Tech. in Computer Science and Engineering</i>	2018 – 2020
	Techno India University, West Bengal	Kolkata, India
	<i>B.Tech. in Computer Science and Engineering</i>	2014 – 2018
Papers / Patents	Method, Apparatus, and Computer Readable Medium (Patent)	
	<i>Nithish Divakar, Wrik Bhadra</i>	
	US Patent and Trademark Office [filing expected Dec 2021]	
	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) [submitted Oct 2021 - pending review] medRxiv 2021.01.07.21249121 link	
Internships	Rakuten India	Jun 2020 – Jul 2020
	<i>Software Engineering intern</i>	
	Worked on full-stack development (Go backend, Vue.js frontend) of an Application Performance Monitoring system.	
	Rakuten Ready	Jan 2020 – May 2020
Selected projects	<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.	
	Distracted Driver Detection	Feb 2019 – Apr 2019
	<i>Supervisor: Prof. Mayank Vatsa, IIIT Delhi</i>	Team size: 3
Given dashboard images, 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 <i>Supervisor: Prof. Mayank Vatsa, IIT 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. 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 <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	Rakuten India annual awards 2021 <i>Part of the winning team under the Rakuten Eureka (Innovation) category</i> 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