

# Wrik Bhadra

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

Research interests	Computer Vision, Machine Learning, Multi-modal Learning	
Employment	<b>Rakuten India</b>	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	<b>IIIT Delhi</b>	New Delhi, India
	<i>M.Tech. in Computer Science and Engineering</i>	2018 – 2020
	<b>Techno India University, West Bengal</b>	Kolkata, India
	<i>B.Tech. in Computer Science and Engineering</i>	2014 – 2018
Papers / Patents	<b>Method, Apparatus, and Computer Readable Medium</b> (Patent)	
	<i>Nithish Divakar, Wrik Bhadra</i>	
	US Patent and Trademark Office [filing expected Dec 2021]	
	<b>Generalized Prediction of Hemodynamic Shock in Intensive Care Units</b> <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 <a href="#">link</a>	
Internships	<b>Rakuten India</b>	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.	
	<b>Rakuten Ready</b>	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.	
	<b>Distracted Driver Detection</b>	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 <a href="#">poster</a> / GitHub <a href="#">repo</a> / Kaggle <a href="#">link</a>		

	<b>Enhanced Pattern Unlocking in Smartphones</b> 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 <a href="#">report</a> / GitHub <a href="#">repo</a>
Skills	<b>Programming languages:</b> Python, MATLAB, Java, C/C++ <b>Web/Application development:</b> Python-Flask, Vue JS, MongoDB, SQL <b>Machine Learning:</b> PyTorch, TensorFlow, scikit-learn <b>Tools:</b> 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	<b>Rakuten India</b> Jun 2021 & Mar 2021 <i>Conducted technical interviews for a prospective full-time and three intern candidates for a separate business unit.</i>  <b>Rakuten India</b> Nov 2020 – Jan 2021 <i>Mentored a CS undergrad intern on a project involving application of image processing techniques.</i>
Honors, Awards & Recognition	<b>Rakathon - Rakuten India's annual hackathon</b> 2021 <i>Selected in the top 110 teams out of 7500+ submissions under the AI - Healthcare category</i>  <b>Ministry of HRD, Govt. of India</b> 2014 <i>Letter of congratulation for performance in AISSCE 2014 (top 0.1% candidates across the country)</i>
Volunteering	<b>Coursera</b> Jul 2016 – Present <i>Course beta-tester</i>
Hobbies	Reading experiential books Playing chess