

# Vibhor Agarwal

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SUMMARY	Fourth Year PhD student with strong analytical and computational skills seeking challenging projects and opportunities in Machine Learning Applications.	
CONTACT INFORMATION	Address: 33 W 8th Ave, Apt B, Columbus OH 43201 Linkedin ID: vibhor-agarwal-phd      Github UserID: BrittGeek	Mobile: +1 (614) 558-5297 e-mail: agarwal.282@osu.edu
EDUCATION	<b>The Ohio State University</b> , Columbus, OH, USA <i>Doctor of Philosophy in Geodetic Science</i> • Expected graduation date: December 2020	<b>August 2016 – Present</b> GPA: 3.89/4.00
	<b>Indian Institute of Technology (ISM)</b> , Dhanbad, India <i>Master of Science and Technology (Integrated) in Applied Geology</i>	<b>August 2009 – August 2014</b> GPA: 8.40/10.00
PROFESSIONAL EXPERIENCE	<b>School of Earth Sciences, The Ohio State University</b> , Columbus, OH, USA <i>Graduate Teaching Assistant</i> Led 3 Geoscience labs comprising 100 students per semester. Instructed students from diverse academic disciplines in basic geology concepts and helped them in improving analytical and logical skills.	<b>August 2017 – Present</b>
	<b>Division of Geodetic Sciences, The Ohio State University</b> , Columbus, OH, USA <i>Graduate Student/ Researcher</i> Developed and led projects to address challenging Geoscience problems using data driven approach.	<b>August 2016 – Present</b>
	<b>Cairn India Limited</b> , Gurgaon, India <i>Summer Internship</i> Worked in multidisciplinary team of Geoscientists, Petroleum Engineers and integrated diverse datasets to enhance Reservoir characterization scheme resulting in better quantification of Petroleum Assets.	<b>June 2013 – July 2013</b>
PROJECTS	<b>Modeling hydrologic systems via Artificial Neural Network(ANN)</b> Used Remote Sensing (RS) and ground- truth datasets to downscale the resolution of hydrologic model via ANN. Optimized ANN model performance to 90% by selecting optimal variables and best model parameters. Model can also be used to predict future groundwater storage changes.	
	<b>Monitoring Geological Hazards using advanced Image Processing of RS data</b> Devised workflow using GIS and open source tools for better monitoring and geovisualization of complex problems such as waste dumping and Harmful Algal Blooms using high resolution RS datasets.	
	<b>Glacier Mass Balance Estimation and Uncertainty Analysis using diverse RS data</b> Performed rigorous computation on historical and contemporary Remote Sensing datasets followed by statistical analysis to obtain reliable estimates of changes in glacier area, velocity and mass for a key Himalayan glacier. Provided first ever holistic analysis of factors affecting Glacier Health in the region and published results in a leading peer reviewed journal which has been cited extensively.	
SKILLS	Machine Learning, Numerical Modeling, Statistical analysis, Image Processing, Photogrammetry	
TOOLS	ArcGIS, Matlab, Python, R, SQL, Microsoft Excel and other RS softwares.	
SELECTED PUBLICATIONS	Agarwal, V., Bolch T., Syed, T.H., Pieczonka, T., Strozzi, T., Nagaich, R. "Area and mass changes of Siachen Glacier (East Karakoram)", <i>Journal of Glaciology</i> , 63, 148-163, 2017 ( <i>Citations: 20</i> ).	
SELECTED PRESENTATIONS	Agarwal, V. et al. "Estimation of High-Resolution Aquifer Storage Coefficients Via ANN", 27th Assembly of IUGG, Montreal, Canada, July 11, 2019	
WORKSHOPS AND BOOTCAMPs	1. Hack week for using Remote Sensing big data using Python and open source tools University of Washington, Seattle <b>July 2019 (1 week)</b> 2. Training on Data Science and Reproducible Research using R and Git University of California, Santa Barbara <b>August 2018 (1 week)</b>	
AWARDS	1. OSU Graduate Fellowship awarded to top incoming Graduate Students for academic year 2016-17. 2. Graduate Teaching Award from School of Earth Sciences, OSU for 2017-18 academic year.	