

CONTACT	EE Department, IIT Bombay Powai, Mumbai, 400076 Webpage: hrushikeshloya.github.io	+91 9769316234 loyahrushikesh@gmail.com
INTERESTS	Computational Biology, Bioinformatics, Cancer Genomics, Machine Learning	
EDUCATION	<p>Indian Institute of Technology, Bombay, Mumbai, India Jul 2015 – Jun 2020 Bachelor and Master of Technology in Electrical Engineering Specialization in Communications and Signal Processing Honors in Electrical Engineering with Major Cumulative GPA of 9.48/10 Minor in Computer Science & Engineering</p> <p>National University of Singapore, Singapore Aug 2018 – Dec 2018 TFI-LEARN Semester Exchange Program Electrical Engineering and Computer Science with Cumulative GPA of 9.8/10</p>	
PUBLICATIONS	<p>Uncertainty Estimation in Cancer Survival Prediction Feb 2020 8th International Conference on Learning Representations (ICLR) Workshop Hrushikesh Loya, Pranav Poduval, Deepak Anand, Neeraj Kumar, Amit Sethi</p> <p>Stochastic Activation & Bistability in Rab GTPase Network Jan 2020 Proceedings of the National Academy of Sciences of the United States of America Urban Bezaljak, Hrushikesh Loya, Beata Kaczmarek, Martin Loose, Timothy Saunders</p> <p>Bayesian Framework for Cancer Survival Prediction Nov 2019 Annals of Oncology Hrushikesh Loya, Deepak Anand, Pranav Poduval, Neeraj Kumar and, Amit Sethi</p> <p>Phenotype Switching during TNFα - TNRF1 Signaling Oct 2019 Best Poster Award 9th Nextgen Genomics, Biology, Bioinformatics and Technologies Conference Shubhank Sherekar*, Sonal Manohar*, Hrushikesh Loya*, Sharmila Biswas, Reshma Patil, Ganesh Viswanathan</p> <p>Phenotype Switching during Tumor Necrosis Factor alpha signalling May 2019 17th international TNF Superfamily conference Shubhank Sherekar*, Sonal Manohar*, Hrushikesh Loya*, Reshma Patil, Ganesh Viswanathan</p>	
RESEARCH EXPERIENCE	<p>Bayesian Framework for Cancer Survival Prediction and Prognosis Electrical Engineering, IIT Bombay Apr 2019 – Present Master's Thesis; Advisor: Prof. Amit Sethi Built an end-to-end pipeline for uncertainty estimation in cancer survival prediction using genomics information and some clinical features available in TCGA-BRCA</p> <p>Stochastic Activation and Bistability in a Rab GTPase Regulatory Network Mechanobiology Lab, National University of Singapore Jul 2018 – Aug 2019 Guide: Prof. Timothy Saunders Stochastic and deterministic reaction diffusion modeling and in-vitro experiments help discover the positive feedback present in Rab5 activation switch</p> <p>Phenotype Switching during Tumor Necrosis Factor alpha signalling Biomolecular Engineering Lab, IIT Bombay Dec 2017 – Dec 2018 Guide: Prof. Ganesh Viswanathan Designed community detection algorithms which takes care of functional commonality of proteins in the hand-crafted protein-protein interaction network for TNF alpha signaling</p>	

*Equal Contribution

	Image Analysis and Modelling of pattern formation in Hibiscus petals University of Cambridge May 2018 – Aug 2018 Guide: Prof. Edwige Moyroud Developed Image processing pipeline and computational spatio-temporal models to quantify and explain the red bull's pattern in Hibiscus Trionum petals		
ACADEMIC HONORS	Recipient of the Institute Academic Prize at IIT Bombay 2016 – 2017 For being one of the top two in the department based on a year's performance		
	Among top 3 in Electrical Engineering batch of 82 students		
	Awarded TFI-LEaRN Scholarship for semester exchange in NUS Jul 2018 – Dec 2018 1 out of 45 scholars from Asia to be recognized as Leaders of tomorrow		
	Awarded an A+ Grade in 3 courses Grade awarded to a select few for exceptional performance in a course In Biopotential I: Cellular Signals, Computer Vision, and Introduction to Computational Biology		
TEACHING EXPERIENCE	BB101: Introduction to Biology Department of Biosciences and Bioengineering, IIT Bombay Spring 2017 Teaching Assistant with Prof. Ambarish Kunwar and Prof. Rohit Manchanda for first year UGs		
	MA205: Complex Analysis Department of Mathematics, IIT Bombay Autumn 2018 Teaching Assistant with Prof. Sudarshan Gurjar for second year Engineering UGs		
	MA207: Partial Differential Equations Department of Mathematics, IIT Bombay Autumn 2018 Teaching Assistant with Prof. Ronnie Sebastain and Prof. Manoj Keshari for Engineering UGs		
	EE308: Communication Systems Department of Electrical Engineering, IIT Bombay Autumn 2019 Teaching Assistant with Prof. Gaurav Kasbekar for third year Electrical Engineering UGs		
	Biotech Club Manager Institute Technical Council Apr 2017 – Apr 2018 Part of 55 member council responsible for developing and promoting technical activities in institute Headed team of 3 conveners with aim of promoting events and projects in interdisciplinary Biology		
	Marketing Coordinator Techfest, IIT Bombay Apr 2016 – Dec 2016 Guided and coordinated with a team of 10 students to procure sponsorships worth INR 1 million Assisted in setting up 150+ Diabetes Screening Camps to spread awareness among 100,000+ people Volunteered in National Social Service, India to promote a green campus Administered installation of bouldering wall & facilitated camps for 800+ enthusiasts		
ACADEMIC DOMAIN	Probability and Statistics Advanced Concentration Inequalities, Probabilistic Models, Probability and Random Processes, Data Analysis and Interpretation, Introduction to Fuzzy / Neural Systems, Science of Information, Statistics, & Learning, Advanced Topics in Machine Learning		
	Computer Science Data Structures and Algorithms, Operating Systems, Discrete Structures, Logic for Computer Science, Computer Vision and Pattern Recognition		
	Biology Introduction to Biology, Introduction to Computational Biology, Medical Image Computing, Biopotentials I: Cellular Signals, Medical Sensors		
REFERENCES	Prof. Amit Sethi Electrical Engineering IIT Bombay Webpage Email	Prof. Timothy Saunders Mechanobiology Lab NUS Webpage Email	Prof. Edwige Moyroud SLCU University of Cambridge Webpage Email