

# Yeshwanth Cherapanamjeri

*Ph.D Student in Computer Science*

CONTACT INFORMATION	UC Berkeley 7 <sup>th</sup> Floor, Sutardja Dai Hall	<a href="https://yeshwanth94.github.io">https://yeshwanth94.github.io</a> <a href="mailto:yeshwanth@berkeley.edu">yeshwanth@berkeley.edu</a>
RESEARCH INTERESTS	Learning Theory, Optimization, High Dimensional Statistics	
EDUCATION	<b>UC Berkeley</b> Ph.D Student in Computer Science Advisor: Prof. Peter Bartlett CGPA: 4.0	(August 2017 - Present)
	<b>Indian Institute of Technology Bombay</b> B. Tech with Honors in Computer Science and Engineering Minor in Applied Statistics and Informatics CGPA: 9.31 ( <i>Ranked among the top 10% of the department</i> )	(July 2011 - May 2015)
PAST EMPLOYMENT	<b>Microsoft Research India</b> <i>Research Fellow</i>	(June 2015 - July 2017) Advisors: Dr. Prateek Jain and Dr. Praneeth Netrapalli
PUBLICATIONS	<b>Thresholding based Efficient Outlier Robust PCA</b> <b>Yeshwanth Cherapanamjeri</b> , Prateek Jain, Praneeth Netrapalli Thirtieth Conference on Learning Theory (COLT '17) ArXiv Version: <a href="https://arxiv.org/abs/1702.05571">https://arxiv.org/abs/1702.05571</a> <b>Nearly Optimal Robust Matrix Completion</b> <b>Yeshwanth Cherapanamjeri</b> , Kartik Gupta, Prateek Jain Thirty-Fourth International Conference on Machine Learning (ICML '17) ArXiv Version: <a href="https://arxiv.org/abs/1606.07315">https://arxiv.org/abs/1606.07315</a>	
RESEARCH EXPERIENCE	<b>Robust Matrix Completion</b> <i>Advisor: Dr. Prateek Jain, Microsoft Research India</i> <ul style="list-style-type: none"><li>• Formulated Robust Matrix Completion as the problem of recovering a sparsely-corrupted low rank matrix by observing a small number of entries from the matrix</li><li>• Proposed an efficient algorithm based on singular value projection and hard thresholding</li><li>• Established the <i>information-theoretic optimality</i> of the algorithm in the fraction of corruptions</li><li>• Established the near-<i>optimality</i> of sample and run-time complexities</li><li>• Empirically evaluated the algorithm on synthetic data and the foreground-background separation task where we obtained 10× speedup over existing methods</li></ul>	(June 2015 - May 2016)
	<b>Non Convex Outlier-Robust PCA</b> <i>Advisors: Dr. Prateek Jain and Dr. Praneeth Netrapalli, Microsoft Research India</i> <ul style="list-style-type: none"><li>• Proposed first provably near-<i>linear</i> time algorithm for Outlier-Robust PCA</li><li>• Proved the <i>information-theoretic optimality</i> of the algorithm in the fraction of outliers tolerated</li><li>• Empirically evaluated the proposed algorithm on a variety of anomaly detection datasets</li></ul>	(June 2016 - February 2017)
	<b>Contour and Junction Detection in Architectural Images</b> <i>Advisor: Prof. Marcus Magnor, TU Braunschweig</i> <ul style="list-style-type: none"><li>• Implemented and evaluated the <i>gPB</i> algorithm for detecting contours on natural images</li><li>• Proposed domain specific extensions to <i>gPB</i> to extract junction points based on extracted contours</li><li>• Integrated into a user-guided tool to reconstruct the façade of a building from multiple images</li></ul>	(May 2013 - July 2013)