To my parents
Acknowledgments

For me, research as an interesting vocation started at CVIT under the guidance of Prof. C. V. Jawahar over fifteen years ago. From then to now, I am fortunate to have a continued association with him. He has taught me the work ethics required to do serious research and continuously pushed me to raise the bar. Beyond research, his several expositions about various aspects of professionalism continue to benefit my career.

From reading the book "Multiple view geometry" during bachelors for computer vision lectures to actually working with the author, Prof. Andrew Zisserman, closely has been a wonderful journey. From his various instructions to me and from several hours of thinking together, I think I somewhat understand what it means to do world-class research. I will continue to reflect on our interactions and imbibe several aspects of it into my research methodologies. I particularly appreciate the meticulousness required in good research.

This PhD would not have been possible without both my advisers Prof. C. V. Jawahar and Prof. Andrew Zisserman and I thank them for their guidance over the years. I also thank my collaborators Prof. Vittorio Ferrari and Marcin Eichner. I am always inspired by Vitto’s energy and creativity.

Visiting University of Oxford as an exchange student for about one and a half years and interacting with students and faculty at Visual Geometry group has been one of my best life experiences. For making this experience so lovely, I thank many of the PhD students at VGG: Yusuf, Relja, Amr, Karen, Yuning, Tomas, and Ken. I particularly acknowledge the trio who made up the bulk of my social and other intellectual pursuits: Varun Gulshan, Arpit Mittal and Rohan Paul. With Varun, I particularly cherish discussions on topics such as politics, society and life. With Rohan, I am amazed and will always remember his dedication and effort towards making a cost-effective cane for visually challenged in developing and under developed countries. I wish him great success for his various social projects. With Arpit, I always felt like I never left home. I thank Yusuf Aytar and Ahsan Alvi for helping me in building the GUI for the web-demo. I thank the post docs at the time who always answered my questions: Dr Andrea Vedaldi, Dr. Matthew Blascho and Dr. Lubor Ladicky. I thank the support staff at VGG and department of engineering for helping me with visas. I thank Oxford, the university town, for being such a wonderful and pleasant place.

For having spent a third of my life on IIIT campus, it was my second home. My B.tech years have been formative time for my career and during this time I have met several interesting people and diverse set of personalities. I particularly would like to acknowledge my social circle who had direct effect on
me: Gopalakrishna, Pranav, Manohar, Anil, Kranthi, Ranganath, Bala, Jitendra, Aravind, Balakrishna and Keerthi. I particularly acknowledge Gopalakrishna, Pranav and Manohar for their unintended role in me pursuing research. Gopals passion for research, Manohars work ethic and Pranavs elaborate and incisive thinking have in some ways inspired me to pursue research. I also would like to thank friends and colleagues at Sarnoff labs: Ranjeeth, Aparna, Sravanthi, Manika, Nalin, Prakash, Hitesh, Gajender, Aastha, Manish, Ankit and Binny, for inspiring me in several ways.

In my experience, PhD is a solitary pursuit (besides the interactions with advisors) for the large parts and one needs socially and intellectually compatible group of individuals to cope with it. During my PhD, I am fortunate to have found several such individuals at IIIT who made the journey easier. Anand Mishra and I, being co-passengers, have become good colleagues and friends over a period of time discussing various aspects of research and life. As the strength of our lab increased, I had good affinity with the BITS gang (Aniket, Sourabh and Pritish), Vijay Kumar, Praveen Krishnan, Yashaswi Verma and Omkar Parkhi. I thank all of them for their interactions with me. I thank Aniket Singh in particular for giving me time to discuss various ideas during my time at IIIT and helping me with Theano. During my PhD, I also had opportunities to interact with students several years junior to me: Digvijay Singh, Ayush Minocha, Mayank Juneja, Siddarth Chandra. Thank you for reminding me that I am a Dinosaur in making. Although we have very little overlap, I thank Pramod Shankar for his various wisdoms.

I would like to thank Prof. PJN, Prof. Jayanthi and Prof. Anoop for creating such a wonderful lab (CVIT). I would like to thank the support staff at IIIT and CVIT who over the years have helped me in several matters. In particular I would like to thank Kishore and Appaji in Admin department and Satya and Phani at CVIT. I also gratefully acknowledge Rajan’s and Nandini’s contribution in annotating the pose datasets.

I thank my parents for always giving me their support and for their constant patience. I thank my sister and brother-in-law for being there for me. I also would like to thank my little niece Gayatri for bringing joy into our family. She is the first baby that I interacted closely with. I wish I could have made her part of my pose datasets.

Finally, I would like to thank everyone who has contributed towards my thesis and my life but have not been acknowledged.