# Milind Padalkar

Curriculum Vitae

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#### Education

## 2011-till PhD Candidate,

date Dhirubhai Ambani Institute of Information and Communication Technology (DA-IICT), Gandhinagar, India, CPI 9.00/10.

Thesis title: Novel Techniques for Auto-inpainting in Heritage Reconstruction (Review received from one examiner, awaiting review from one more examiner) Supervisor: Dr. Manjunath V. Joshi

#### 2008–2010 M.Tech. in Computer Engineering,

Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat, India, CGPA 8.75/10.

Thesis title: *Histogram Based Efficient Video Shot Detection Algorithms* Supervisor: Dr. Mukesh A. Zaveri

#### 2004–2008 B.E. in Information Technology,

Finolex Academy of Management and Technology (FAMT), Ratnagiri, University of Mumbai, India,

Aggregate Percentage 61.67%.

Project title: Content Based Image Retrieval System

Supervisor: Prof. Santosh V. Jadhav

## 2004 Higher Secondary Certificate (H.S.C.),

Maharashtra State Board, India, Percentage 80.50%.

#### 2002 Secondary School Certificate (S.S.C.),

Maharashtra State Board, India,

Percentage 85.86%.

#### Publications

#### Book

1] M. G. Padalkar, M. V. Joshi, and N. L. Khatri, *Digital Heritage Reconstruction Using Super-resolution and Inpainting*, B. A. Barsky, Ed. Synthesis Lectures on Visual Computing, Morgan & Claypool Publishers, 2016. [Online]. Available: http://www.morganclaypoolpublishers.com/catalog\_Orig/product\_info.php?products\_id=1008.

## **Book Chapter**

[1] M. G. Padalkar and M. V. Joshi, "Automatic detection and inpainting of defaced regions and cracks in heritage monuments," in, [Revised draft submitted to Prof. Santanu Chaudhury, IIT Delhi whose proposal for publishing an edited volume of chapters outlining

the outcome of different aspects of the Indian Digital Heritage (IDH)-Hampi project has been approved by Springer-Verlag (http://digitalhampi.in/#book)].

#### **Journal**

[1] M. G. Padalkar and M. V. Joshi, "Auto-inpainting heritage scenes: A complete framework for detecting and infilling cracks in images and videos with quantitative assessment," *Machine Vision and Applications*, vol. 26, no. 2-3, pp. 317–337, 2015. [Online]. Available: http://dx.doi.org/10.1007/s00138-015-0661-6.

## Conferences and Workshops

- M. G. Padalkar, M. V. Joshi, and N. Khatri, "Simultaneous inpainting and super-resolution using self-learning," in *Proceedings of the 26th British Machine Vision Conference (BMVC2015)*,
   X. Xie, M. W. Jones, and G. K. L. Tam, Eds., BMVA Press, 2015, pp. 105.1–105.12. [Online].
   Available: https://dx.doi.org/10.5244/C.29.105.
- [2] M. G. Padalkar, M. V. Vora, M. V. Joshi, M. A. Zaveri, and M. S. Raval, "Identifying vandalized regions in facial images of statues for inpainting," in *ICIAP2013 Workshop on Multimedia for Cultural Heritage*, ser. Lecture Notes in Computer Science, vol. 8158, Springer Berlin Heidelberg, 2013, pp. 208–217. [Online]. Available: http://dx.doi.org/10.1007/978-3-642-41190-8\_23.
- [3] M. G. Padalkar, M. V. Joshi, M. A. Zaveri, and C. M. Parmar, "Exemplar based inpainting using autoregressive parameter estimation," in *Proceedings of the International Conference on Signal, Image and Video Processing*, ser. ICSIVP'12, 2012, pp. 154–160, ISBN: 978-93-81583-19-7.
- [4] M. G. Padalkar, M. A. Zaveri, and M. V. Joshi, "Svd based automatic detection of target regions for image inpainting," in *Computer Vision - ACCV 2012 Workshops*, J.-I. Park and J. Kim, Eds., ser. Lecture Notes in Computer Science, vol. 7729, Springer Berlin Heidelberg, 2012, pp. 61–71. [Online]. Available: http://dx.doi.org/10.1007/978-3-642-37484-5\_6.
- [5] M. G. Padalkar and M. A. Zaveri, "Dissolve detection based shot identification using singular value decomposition," in *Proceedings of the 2010 Fourth Asia International Conference on Mathematical/Analytical Modelling and Computer Simulation*, ser. AMS '10, Washington, DC, USA: IEEE Computer Society, 2010, pp. 312–316. [Online]. Available: http://dx.doi.org/10.1109/AMS.2010.69.

## International Exposure

- Feb. 2016 Attended the ACM Distinguished Speaker talk titled "From Vision-Realistic Rendering to Vision Correcting Displays" by Prof. Brian A. Barsky (UC Berkeley) at Gandhinagar, India.
- Jan. 2016 Presented two papers in XRCI Open 2016 at Bengaluru, India. [Posters]
- Sept. 2015 Presented paper in the 26<sup>th</sup> British Machine Vision Conference (BMVC2015) at Swansea, United Kingdom. [Poster]
- Jan. 2015 Participated in the *Immersive Storytelling track*, MIT Media Lab Design Innovation Workshop 2015 at Gandhinagar, India.
- Dec. 2013 Attended the National Conference on Computer Vision, Pattern Recognition, Image Processing and Graphics (NCVPRIPG2013) at Indian Institute of Technology Jodhpur, India.
- Dec. 2012 Attended the Eight Indian Conference on Vision, Graphics and Image Processing (ICVGIP2012) at Indian Institute of Technology Bombay, India.

- Dec. 2012 Attended a two day workshop on Digital Video Processing and Analytics (DVAP-12) at Indian Institute of Technology Madras, India.
- Jan. 2012 Presented paper in the International Conference on Signal, Image and Video Processing (ICSIVP2012) at Indian Institute of Technology Patna, India. [Oral]
- May 2010 Presented paper in the Fourth Asia International Conference on Mathematical/Analytical Modelling and Computer Simulation (AMS2010) at Kota Kinabalu, Malaysia. [Oral]

## Awards and Honours

- Sept. 2015 Awarded the Xerox Research Centre India Travel Grant  $( \ \ \, \ \, \ \, \ \, \ \, \ \, )$  to attend the 26<sup>th</sup> British Machine Vision Conference (BMVC2015) at Swansea, United Kingdom.
- Nov. 2014 Served as an Organizing Committee Member in the  $\mathcal{J}^{rd}$  ACCV Workshop on e-Heritage which was held in conjunction with the  $12^{th}$  Asian Conference on Computer Vision (ACCV2014), Singapore.
- Sep. 2014 Served as a *Reviewer* in the Eighth International Conference on Advances in Pattern Recognition (ICAPR 2015), Kolkata. (Invited by: Program Chairs, ICAPR 2015).
- Jan. 2014 Served as a *Reviewer* in Multimedia Tools and Applications. (Invited by: The Editorial Office, Multimedia Tools and Applications).

# Competitive Exams

2007 Graduate Aptitude Test in Engineering (GATE),

Discipline: Information Technology, All India Rank: 46.

Skills

Programming Frequently used: C/C++ and Matlab.

**Less frequently used:** OpenCV library (Link to a video player I developed using OpenCV: http://www.mgpadalkar.in/videoPlayer/)

**New to:** Python and libraries for deep learning viz. Keras, Torch, CAFFE and Theano.

Publishing /  $\mbox{\sc int} T_{\mbox{\sc E}}X,$  MS Office, Libre Office

Operating MS Windows, Linux

Presentation

Systems

Experience

Apr. 2016 - Teaching Assistant,

Jul. 2016 DA-IICT, Gandhinagar, India.

Aug. 2011 – Junior Research Fellow (JRF),

Mar. 2016 DA-IICT, Gandhinagar, India,

Project: "Immersive Navigation for a Walk-through Application", a part of the *Indian Digital Heritage Project* funded by Department of Science and Technology (DST), Govt. of India.

Feb. 2011 – Assistant Professor,

Jul. 2011 MCA Department,

Sardar Patel Institute of Technology, Mumbai, India.

Jan. 2011 - Lecturer,

Feb. 2011 Department of Information Technology, Sardar Patel Institute of Technology, Mumbai, India.

## **E**xtra Curricular Activities

2007–2008 General Secretary of the institute (FAMT)

2007–2008 Chief Coordinator of the Information Technology Students Association (FAMT)

2005–2007 Coordinator for Athletics – Annual Sports (FAMT)

1999–2007 Participated and won in various games like Athletics, Chess and Football at College, Division, State and National level events

2001–2002 Awarded as the *National Athlete of the Year* by school (Vidya Vikasini English High School, Vasai (E))

#### Hobbies

NJA Playing musical instruments like mouth-organ & guitar.

Surfing the Internet, especially various technical forums.

Blog I also like to write articles in my blog: http://milindpadalkar.wordpress.com

## - References

#### ▶ Dr. Manjunath V. Joshi

Professor, DA-IICT, Gandhinagar, India

 $\bowtie mv\_joshi@daict.ac.in$   $\Rightarrow +91-79-30510611$ 

#### ▶ Dr. Suman K. Mitra

## ▶ Dr. Mukesh A. Zaveri

Associate Professor, SVNIT, Surat, India

 $\bowtie mazaveri@coed.svnit.ac.in$   $\Rightarrow +91-261-2201766$