JAYANT THATTE | PH.D. | STANFORD UNIVERSITY

website: www.stanford.edu/~jayantt

470 Anton Ct, Palo Alto, CA 94301 *Phone: +1-650-285-7024* *email: jayantt@stanford.edu*

Stanford Ph.D. graduate interested in computer vision, virtual reality, image processing

EDUCATION

***Stanford University*, Ph.D., Electrical Engineering** (2014 – 2020)
Research group: Image, Video and Multimedia Systems – *advisor*: Bernd Girod **GPA: 3.97/4.00**
Dissertation: Cinematic virtual reality with head-motion parallax

***Indian Institute of Technology (IIT) Madras*, B.Tech and M.Tech, Electrical Engineering** (2009 – 2014)
Graduated with Philips India Award for highest cumulative GPA in the graduating batch **GPA: 9.37/10.0**

PROFESSIONAL EXPERIENCE

Apple Inc.*, Cupertino *(Intern, Camera Engineering Group) (June – Sep 2016)
Keywords: Deep learning, computer vision, virtual reality
Used a combination of convolutional neural networks and classical methods to design an algorithm for high-quality novel view synthesis for applications that have constraints on the available computational capacity

Barclays Bank PLC.*, Singapore *(Intern, Quantitative Analyst) (May – Jul 2013)
Keywords: machine learning, statistics, time-series analysis
Developed high-frequency trading algorithms for predicting market movements, trade profitability, hedging strategies

OTHER ACADEMIC PROJECTS

Deep depth estimation from stereo imagery, (course project) (Oct – Dec 2015)
Keywords: deep learning, computer vision, depth estimation
Developed an algorithm to estimate dense depth from stereo images using a CNN-based 3D plane-sweep cost volume

Simultaneous Visual and Linguistic Embedding with CNN and T-LSTM, (course project) (Apr – Jun 2015)
Keywords: deep learning, CNNs, LSTMs
Used CNN and T-LSTM to extract visual and linguistic scene descriptor embeddings in a common vector space for the task of image-caption retrieval using MSCOCO and Flickr-16k datasets

SKILLS

Programming Python, C++, MATLAB **Platforms** PyTorch, OpenGL, CUDA, Unity
Relevant courses CNNs for visual recognition, deep learning for NLP, machine learning, artificial intelligence, convex optimization, digital image processing

AWARDS

1. **NVIDIA Best Poster Award**, "Stacked OmniStereo for Virtual Reality with Six Degrees of Freedom", SCIEN (2017)
2. IEEE Signal Processing Society **Best Paper for Industry Award**, "Depth Augmented Stereo Panoramas for Cinematic Virtual Reality with Focus Cues", ICIP (2016)
3. **Apple Inc. Best Poster Award**, "Depth Augmented Stereo Panorama for Cinematic Virtual Reality", SCIEN (2015)
4. **Philips India Award**, highest cumulative GPA, B.Tech-M.Tech, Indian Institute of Technology (IIT) Madras (2014)

PUBLICATIONS

1. **J. Thatte**, B. Girod, VCIP 2019, "*A Statistical Model for Disocclusions in Depth-based Novel View Synthesis*"
2. **J. Thatte**, B. Girod, ECCV 2018 (Workshop)
   "*The Effect of Motion Parallax and Binocular Stereopsis on Viewer Preference and Size Perception in Virtual Reality*"
3. **J. Thatte**, B. Girod, PMII, Electronic Imaging Symposium 2018
   "*Towards Perceptual Evaluation of Six Degrees of Freedom VR Rendering from Stacked OmniStereo Representation*"
4. **J. Thatte**, T. Lian, B. Wandell, B. Girod, VCIP 2017, "*Stacked Omnistereo for VR with Six Degrees of Freedom*"
5. **J. Thatte**, J. -B. Boin, H. Lakshman, G. Wetzstein, B. Girod, ICIP 2016
   "*Depth Augmented Stereo Panorama for Cinematic Virtual Reality with Focus Cues*"
6. **J. Thatte**, J. -B. Boin, H. Lakshman, B. Girod, ICME 2016
   "*Depth Augmented Stereo Panorama for Cinematic Virtual Reality with Head-Motion Parallax*"
7. Y. Duan, **J. Thatte**, A. Yaklovleva, A. Norcia, NeuroImage Journal, Elsevier *[submitted]*
   "*Disparity in Context: Understanding how monocular image content interacts with disparity in human visual cortex*"