

Tam Nguyen

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Latest update on September 8, 2016.

Education

2011–2013 **PhD.**, *National University of Singapore*, Singapore.

- Advisor: Prof. Shuicheng Yan
- Finished PhD in 2.5 years

2007–2009 **M.Eng.**, *Chonnam National University*, South Korea.

- Advisor: Prof. Deokjai Choi
- GPA: 4.5/4.5. Rank: 1/50

2001–2005 **BSc.**, *University of Science*, Vietnam.

- Advisor: Prof. Minh-Triet Tran
- GPA: 8.92/10. Rank: 1/250

Professional Appointments

08/2016– **Assistant Professor**, *Department of Computer Science*, University of Dayton.

present Deliver lectures in algorithms and visual computing, conduct research on computer vision, machine learning, mixed reality, and write research proposals.

12/2013– **Research Scientist - Principal Investigator**, *Applied Research & Technology for Info-*
07/2016 *comm Centre*, Singapore.

Lead and manage research projects in ARTIC centre, conduct research on computer vision (image parsing, action recognition, visual saliency, and face analysis), machine learning (attribute learning, deep learning), augmented reality and multimedia, write proposals for funding from various agencies, and do consultancy projects to support SMEs.

12/2014– **Adjunct Lecturer**, *National University of Singapore*, Singapore.

07/2016 Deliver lectures of EE5907R - Pattern Recognition class

07/2013– **Postdoc Researcher**, *National University of Singapore*, Singapore.

12/2013 Conduct research on computer vision, machine learning, and multimedia

01/2011– **Graduate Teaching Assistant**, *National University of Singapore*, Singapore.

07/2013 Teaching Assistant in EE2024 - Programming for Computer Interfaces

07/2010– **Research Engineer**, *National University of Singapore*, Singapore.

01/2011 Do project on computer vision and augmented reality, especially in natural feature tracking

06/2009– **Senior Software Engineer**, *Harvey Nash*, Vietnam.

07/2010 Collaborate with Alcatel Lucent on programming NodeB base station

03/2007– **Research Assistant**, *Chonnam National University*, South Korea.

03/2009 Conduct research on smart home and ubiquitous computing

08/2005– **Lecturer**, *University of Science*, Vietnam.

02/2007 Deliver lectures in programming, data structure, and software engineering courses

Research Grants (S\$1.5M ≈ \$1.1M)

- 2015–2017 **Principal Investigator**, *Mobile Augmented Reality Interactive Manual*.
Singapore Ministry of Education – S\$326,000
- 2015–2017 **Co-Principal Investigator**, *Augmented Reality System for Maintenance and Work Support*.
Singapore Maritime Institute – S\$486,400
- 2015–2017 **Co-Principal Investigator**, *Easy Authoring System for Interactive Education*.
Technology Adoption Programme (TAP) Funding, A*STAR – S\$414,000
- 2013–2015 **Co-Principal Investigator**, *IOTVIC: Internet of Things Video Cloud for Education*.
Singapore Ministry of Education – S\$266,000

Publications

H-index: 11. Google Scholar: <https://scholar.google.com.sg/citations?user=qIaGn7YAAAAJ>

Book Chapter

1. Edy Portmann, **Tam V. Nguyen**, Jose Sepulveda, Adrian David Cheok, “Fuzzy Online Reputation Analysis Framework”, *Fuzzy Methods for Customer Relationship Management and Marketing: Applications and Classification*. **IGI Global** (book chapter), pp. 117-140, 2013

Journal Articles

2. **Tam V. Nguyen**, Mohan Kankanhalli. “As-Similar-As-Possible Saliency Fusion”, submitted to *Multimedia Tools and Applications (MTA)*, 2016 - IF = 1.346 (accepted)
3. **Tam V. Nguyen**, Jose Sepulveda. “Augmented Immersion: Video Cutout and Gesture-guided Embedding for Gaming Applications”, *Multimedia Tools and Applications (MTA)*, 2016 - IF = 1.346 (accepted), Link: <http://www.springer.com/home?SGWID=0-0-1003-0-0&Id=3024168&download=1&checkval=fae3e3af398fd1e792cb13fe907e27b7>.
4. **Tam V. Nguyen**, Canyi Lu, Jose Sepulveda, Shuicheng Yan. “Adaptive Nonparametric Image Parsing”, *IEEE Transactions on Circuits and Systems for Video Technology (T-CSVT)*, pp. 1565-1575, 2015 - IF = 2.615.
5. **Tam V. Nguyen**, Zheng Song, Shuicheng Yan. “STAP: Spatial-Temporal Attention-aware Pooling for Action Recognition”, *IEEE Transactions on Circuits and Systems for Video Technology (T-CSVT)*, Vol. 25, No. 1, pp. 77-86, 2015 - IF = 2.615.
6. **Tam V. Nguyen**, Jiashi Feng, Shuicheng Yan. “Seeing Human Weight from a Single RGB-D Image”, *Journal of Computer Science and Technology (JCST)*, Vol. 29, No. 5, pp. 777-784, 2014 - IF = 0.642.
7. Bingbing Ni, Mengdi Xu, **Tam V. Nguyen**, Congyan Lang, Zhongyang Huang, Meng Wang, Shuicheng Yan. “Touch Saliency: Characteristics and Prediction”, *IEEE Transactions on Multimedia (T-MM)*, Vol. 16, No. 6, pp. 1779-1791, 2014 - IF = 1.776.
8. Yanxiang Chen, **Tam V. Nguyen**, Mohan Kankanhalli, Jun Yuan, Shuicheng Yan. “Audio Matters in Visual Attention”, *IEEE Transactions on Circuits and Systems for Video Technology (T-CSVT)*, Vol. 24, No. 11, pp. 1992-2003, 2014 - IF = 2.259.
9. **Tam V. Nguyen**, Bingbing Ni, Hairong Liu, Wei Xia, Jiebo Luo, Mohan Kankanhalli, Shuicheng Yan, “Image Re-Attentionizing”, In *IEEE Transactions on Multimedia (T-MM)*, Vol. 15, No. 8, pp. 1910-1919, 2013 - IF = 1.935.
10. **Tam V. Nguyen**, Si Liu, Jun Tan, Bingbing Ni, Yong Rui, Shuicheng Yan. “Towards Decrypting Attractiveness via Multi-Modality Cues”. In *ACM Transactions on Multimedia Computing, Communications and Applications (TOMM formerly TOMCCAP)*, Vol. 9, No. 4, pp. 28:1-28:20, 2013 - IF = 1.425.

Conference Proceedings

11. **Tam V. Nguyen**, Luoqi Liu, Khang Nguyen. “Image Parsing with Global-to-Local Convolutional Neural Networks”, accepted to International Conference on Control, Automation, Robotics and Vision

(ICARCV) 2016.

12. Erik Cambria, **Tam V. Nguyen**, Brian Cheng, Kenneth Kwok, Jose Sepulveda. "GECKA3D: A 3D Game Engine for Commonsense Knowledge Acquisition ", AAAI Florida Artificial Intelligence Research Society Conference (**FLAIRS**) 2016 (accepted). Link: <http://www.flairs-29.info/>
13. **Tam V. Nguyen**, Jose Sepulveda. "Salient Object Detection via Augmented Hypotheses", International Joint Conference on Artificial Intelligence (**IJCAI**), pp. 2176-2182, 2015.
14. Kang Wang, **Tam V. Nguyen**, Jiashi Feng, Jose Sepulveda. "Sense Beyond Expressions: Cuteness", pp. 1067-1070, **ACM Multimedia 2015**.
15. Xiang Chen, **Tam V. Nguyen**, Mohan Kankanhalli. "SalAd: A Multimodal Approach for Contextual Video Advertising", IEEE International Symposium on Multimedia (**ISM**), pp. 211-216, 2015 Link: http://media.wix.com/ugd/346a54_fe38f555d3cd4c40907eb7199c8e4efa.pdf.
16. **Tam V. Nguyen**, Mengdi Xu, Guangyu Gao, Mohan Kankanhalli, Qi Tian, Shuicheng Yan. "Static Saliency vs. Dynamic Saliency: A Comparative Study", **ACM Multimedia 2013**, pp. 987-996.
17. **Tam V. Nguyen***, Congyan Lang*, Harish Katti, Karthik Yadati, Mohan Kankanhalli, Shuicheng Yan, "Depth Matters: Influence of Depth Cues on Visual Saliency", European Conference on Computer Vision (**ECCV**) 2012, pp. 101-115. (* indicates equal contribution).
18. **Tam V. Nguyen**, Si Liu, Bingbing Ni, Jun Tan, Yong Rui, Shuicheng Yan, "Sense Beauty via Face, Dressing, and/or Voice", **ACM Multimedia 2012**, pp. 239-248.
19. **Tam V. Nguyen**, Kim Jinkook, Deokjai Choi, "ISS: The Interactive Smart-home Simulator", International Conference on Advanced Communication Technology (**ICACT**) 2009, pp. 1828-1833.
20. **Tam V. Nguyen**, Yi Chang Woo, Deokjai Choi, "CCBR: Chaining Case Based Reasoning in Context-Aware Smart Home", Asian Conference on Intelligent Information and Database Systems (**ACIIDS**) 2009, pp. 453-458.
21. Huy Nguyen, **Tam V. Nguyen**, Deokjai Choi, "How to Maximize User Satisfaction Degree in Multi-service IP Networks", Asian Conference on Intelligent Information and Database Systems (**ACIIDS**) 2009, pp. 471-476.
22. **Tam V. Nguyen**, Wontaek Lim, Anh Huy Nguyen, Deokjai Choi, "Context Awareness Framework based on Contextual Graph", IEEE International Conference on Wireless and Optical Communications Networks (**WOCN**), pp. 1-5, 2008.
23. Huy Nguyen, **Tam V. Nguyen**, Dongil Kim, Deokjai Choi, "Network Traffic Anomalies Detection and Identification with Flow Monitoring", IEEE International Conference on Wireless and Optical Communications Networks (**WOCN**), pp. 1-5, 2008
24. **Tam V. Nguyen**, Wontaek Lim, Huy Nguyen and Deokjai Choi, "Context Ontology Implementation for Smart Home", International Conference of Ubiquitous Information Technology (**ICUT**) 2007, pp. 1-6.
25. **Tam V. Nguyen**, Dong Gun Lee, Yong Ho Seol, Myung Hwan Yu, Deokjai Choi, "Ubiquitous Access to Home Appliance Control System using Infrared Ray and Power Line Communication", IEEE International Conference on Internet (**ICI**) 2007, pp. 1-4.
26. **Tam V. Nguyen**, Wontaek Lim, Deokjai Choi, "Smart Home's Context-Aware System Implementation Based on Ontology Reasoning", International Technical Conference on Circuits/Systems, Computers and Communications (**ITC-CSCC**) 2007, pp. 1230-1231.

Technical Demonstration

27. **Tam V. Nguyen**, Dorothy Tan, Jose Sepulveda. "MARIM: Mobile Augmented Reality for Interactive Manuals", accepted to ACM Multimedia 2016.
28. **Tam V. Nguyen**. "Salient Object Detection via Objectness Proposals", in *Proceedings of AAAI Conference on Artificial Intelligence (AAAI)*, pp. 4286-4287, 2015.
29. Si Liu, **Tam V. Nguyen**, Jiashi Feng, Meng Wang, Shuicheng Yan, "Hi, Magic Closet, Tell Me What to Wear!", in *Proceedings of ACM Multimedia 2012*, pp. 1333-1334, Paper link: <http://dl.acm.org/citation.cfm?id=2396470&CFID=592876237&CFTOKEN=47719354>. **Best technical demo award** - Award link: <http://www.sigmm.org/archive/MM/mm12/www.acmmm12.org/awards/index.html> (There are 51 papers in this track: <http://dblp.uni-trier.de/db/conf/mm/mm2012.html>).

30. **Tam V. Nguyen**, Lusong Li, Jun Tan, Shuicheng Yan, “3DME: 3D Media Express from RGB-D Images”, in *Proceedings of ACM Multimedia 2012*, pp. 1331-1332.
31. **Tam V. Nguyen**, Shuicheng Yan, “Seeing Your Weight—An application in targeted advertisement”, International Conference on Computer Vision (ICCV) 2011, unlisted in proceedings. (Mentioned in <http://xiaodong-yu.blogspot.com/2011/11/15-iccv11-paper-i-am-interested-in.html>).

Other Works (workshop/competition/additional author)

32. **Tam V. Nguyen**, Yonghe Tan, Jose Sepulveda. “GACE: Gesture and Appearance Cutout Embedding for Gaming Applications”, *ACM Multimedia 2014 Workshop in Immersive Media Experiences*, pp. 41-44.
33. **Tam V. Nguyen** et al. “Context-aware Action Recognition in Kitchen Environment”, Action Recognition Competition in International Conference on Pattern Recognition (ICPR) 2012 - competition work - **2nd prize winner**. Link: <http://www.murase.m.is.nagoya-u.ac.jp/KSCGR/awards.html>.
34. Remi Tache et al., “Command Center: Authoring tool to supervise augmented reality session”, IEEE Virtual Reality Conference (VR) 2012, pp. 99-100 (Tam V. Nguyen is an additional author)

Under review

35. **Tam V. Nguyen**, Qi Zhao, Shuicheng Yan. “Attentive Systems: A Survey”, submitted to International Journal of Computer Vision (IJCV) (major revision)
36. **Tam V. Nguyen**. “Design and Evaluation of Seam-Carving: A Revisit”, submitted to Signal Processing Letters.
37. Xiang Chen, **Tam V. Nguyen**, Mohan Kankanhalli. “Memorability Matters in Online Video Advertising”, submitted to Signal Processing Letters.

Professional Services

- **Journal Reviewer:**
- IEEE: Transactions on Multimedia, Transactions on Circuits and Systems for Video Technology, Transactions on Neural Networks and Learning Systems, Transactions on Affective Computing
- ACM: Transactions on Multimedia Computing, Communications and Applications, Transactions on Intelligent Systems and Technology
- Springer: Artificial Intelligence Review, Multimedia Systems Journal, The Visual Computer
- Elsevier: Computer Vision and Image Understanding, Pattern Recognition Letters, Neurocomputing.
- **Conference Reviewer:** ACM Multimedia, SIGGRAPH Asia, IEEE Virtual Reality, Multimedia Signal Processing, British Machine Vision Conference, Asian Conference on Computer Vision, MultiMedia Modeling, Pacific-Rim Conference on Multimedia

Awards and Achievements

- 2015 **Outstanding Performance**, *Singapore Polytechnic*, Singapore.
- 2015 **Singapore Polytechnic R&D Commendation Award**, *Singapore Polytechnic*, Singapore.
- 2014 **Excellent Performance**, *Singapore Polytechnic*, Singapore.
- 2013 **Best Paper Award**, *NUS-GSS*, Singapore.
- 2012 **Best Technical Demonstration**, *ACM Multimedia Conference 2012*, Japan.
- 2012 **Student Travel Grant**, *ACM Multimedia Conference 2012*, Japan.
- 2012 **2nd Prize**, *ICPR 2012 contest of “Scene Context based Gesture Recognition”*, Japan.
- 2011 – 2013 **NUS Research Scholarship**, *National University of Singapore*, Singapore.
- 2007 – 2009 **IITA (Institute of Information Technology Assessment) Scholarship**, *South Korea*.
- 2007 **TOSHIBA scholarship for excellent graduate student**, *Japan*.
- 2007 **BK 21 (Brain Korea 21) Scholarship for excellent students**, *South Korea*.
- 2005 **Young Vietnamese of the year**, *Vietnam Government*, Vietnam.

- 2005 **1st Prize, National Olympiad in Informatics**, Vietnam.
- 2005 **3rd Prize in Student Scientific Research**, Ministry of Education and Training, Vietnam.
- 2004 **AmCham Scholarship**, American Chamber, 20 best students in HCM City, Vietnam.
- 2004 **1st Prize, English Essay Contest by Fusion Vietnam Ltd.**, Vietnam.
- 2001 – 2005 **Scholarship for excellent student**, University of Science, Vietnam.

Media Coverage

- US: Discovery News
- Singapore: Strait Times, Channel News Asia, NUS NewsHub, NUS Bulletin, NUS Engineering Research
- Vietnam: TuoiTre, ThanhNien and HTV (Ho Chi Minh City TeleVision Broadcaster)

Referees

Dean's Chair Prof. Shuicheng Yan

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