

# ANH NGUYEN

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## EDUCATION

- 2014 – now** **Ph.D. Candidate in Computer Science** at University of Colorado  
Current research: *mobile sensing, mobile healthcare, signal processing*
- 2010 – 2012** **M.Sc. in Computer Science** at Chonnam National University, Gwangju, South Korea  
Thesis: *Location based Active Contour Model for Object Segmentation from Natural Color Images*  
GPA: 4.0 (/4.0)
- 2005 – 2009** **B.Sc. in Mathematics and Computer Science** at University of Science - HCMC, Vietnam  
Thesis: *Fingerprint Identification System in Banking Transactions*  
Rank: top 10 (/300)

## EMPLOYMENT

- 2014 – now** **Research Assistant**, University of Colorado, Department of Computer Science
- 2016 – 2017** **Instructor**, University of Colorado Denver  
Courses: Fundamentals of Computing
- 2014 – 2016** **Teaching Assistant**, University of Colorado Denver  
Courses: Fundamentals of Computing Lab, Theory of Automata, Computational Complexity and Algorithms, Mobile Computing & Programming
- 2012 – 2014** **Instructor**, University of Science  
Courses: Discrete Mathematics, Pattern Recognition, Object Oriented Programming, Machine Learning

## PUBLICATIONS

### Refereed Conference Proceedings

1. **Anh Nguyen**, Raghda Alqurashi, Zohreh Raghebi, Farnoush Banaei-kashani, Ann C. Halbower, and Tam Vu, *LIBS: A Lightweight and Inexpensive In-Ear Sensing System for Automatic Whole-Night Sleep Stage Monitoring*, ACM GetMobile Highlights, 2017.
2. Nam Bui, **Anh Nguyen**, Phuc Nguyen, Hoang Truong, Ashwin Ashok, Thang Dinh, Robin Deterding, and Tam Vu, *Photometry based Blood Oxygen Estimation through Smartphone Cameras*, International Conference on Mobile Computing and Networking - The Eighth Wireless of the Students, by the Students, and for the Students Workshop (ACM MobiCom-S<sup>3</sup>), 2017. **Best Presentation Award.**
3. Nam Bui, **Anh Nguyen**, Phuc Nguyen, Hoang Truong, Ashwin Ashok, Thang Dinh, Robin Deterding, and Tam Vu, *PhO2: Optical 3D printed elements and NIR/R light extraction techniques for phone-base blood oxygen level measurement*, The ACM Conference on Embedded Networked Sensor Systems

- (ACM SenSys), 2017. (26 out of 151 submissions, acceptance ratio: 17.2%). **Best Paper Award Nominee** and **2nd Prize ACM MobiCom App Contest 2017**
4. **Anh Nguyen**, Duy Nguyen, Nhan Nguyen, Ashwin Ashok, Binh Nguyen, Bao Pham, and Tam Vu, **Demo: Fusing Mobile Sensors for Paper Keyboard On-the-Go**, The ACM International Conference on Mobile Systems, Applications and Services (ACM MobiSys), 2017.
  5. Phuc Nguyen, Hoang Truong, Mahesh Ravindranathan, **Anh Nguyen**, Richard Han, and Tam Vu, **Matthan: Drone Presence Detection by Identifying Physical Signatures in the Drone's RF Communication**, The ACM International Conference on Mobile Systems, Applications and Services (ACM MobiSys), 2017. (34 out of 188 submissions, acceptance ratio: 18%). **SIGMOBILE Research Highlight**
  6. Hoang Truong, Phuc Nguyen, **Anh Nguyen**, Nam Bui, and Tam Vu, **Capacitive sensing 3D-printed Wristband for Enriched Hand Gesture Recognition**, The ACM International Conference on Mobile Systems, Applications and Services - Workshop on Wearable Systems (ACM MobiSys-WearSys), 2017.
  7. **Anh Nguyen**, Zohreh Raghebi, Farnoush Banaei-kashani, Thang Dinh, Ann C. Halbower, and Tam Vu, **Whole Night Sleep Monitoring with a Low-cost In-ear Wearable Device**, The American Thoracic Society International Conference (ATS International Conference), 2017.
  8. **Anh Nguyen**, Raghda Alqurashi, Zohreh Raghebi, Farnoush Banaei-kashani, Ann C. Halbower, and Tam Vu, **A Lightweight and Inexpensive In-ear Sensing System for Automatic Whole-night Sleep Stage Monitoring**, The ACM Conference on Embedded Networked Sensor Systems (ACM SenSys), 2016. (21 out of 119 submissions, acceptance ratio: 17.6%). **Best Paper Award, SIGMOBILE Research Highlight**, and **CACM Research Highlight**.
  9. **Anh Nguyen**, Zohreh Raghebi, Farnoush Banaei-kashani, Ann C. Halbower, and Tam Vu, **LIBS: A Low-cost In-Ear Bioelectrical Sensing Solution for Healthcare Applications**, The 22nd Annual International Conference on Mobile Computing and Networking – Workshop on Wireless of the Students, by the Students, for the Students (ACM MobiCom-S<sup>3</sup>), 2016.
  10. Bahman Rashidi, Carol Fung, **Anh Nguyen**, and Tam Vu, **Android Permission Recommendation using Transitive Bayesian Inference Model**, The European Symposium on Research in Computer Security (ESORICS), 2016.
  11. **Anh Nguyen**, Raghda Alqurashi, Zohreh Raghebi, Farnoush Banaei-kashani, Ann C. Halbower, Thang Dinh, and Tam Vu, **In-ear Biosignal Recording System: A Wearable For Automatic Whole-night Sleep Staging**, The ACM International Conference on Mobile Systems, Applications and Services - Workshop on Wearable Systems and Applications (ACM MobiSys-WearSys), 2016.
  12. Phuc Nguyen, Mahesh Ravindranathan, **Anh Nguyen**, Richard Han, and Tam Vu, **Investigating Cost-effective RF-based Detection of Drones**, The ACM International Conference on Mobile Systems, Applications and Services - Workshop on Micro Aerial Vehicle Networks, Systems, and Applications for Civilian Use (ACM MobiSys-DroNet), 2016.
  13. Moatassem Abdallah, Caroline Clevenger, Tam Vu, and **Anh Nguyen**, **Sensing Occupant Comfort using Wearable Technologies: A Pilot Study**, Construction Research Congress - American Society of Civil Engineers (ASCE CRC), 2015.
  14. **Anh Nguyen**, Raghda Alqurashi, Ann C. Halbower, and Tam Vu, **mSleepWatcher: Why didn't I sleep well?**, ISSAT International Conference on Modeling of Complex Systems and Environments (MCSE), June 2015.
  15. Nguyen Hong Quy, Nguyen Hoang Quoc, **Nguyen Tran Lan Anh**, Hyung-Jeong Yang, and Pham The Bao, **3D Human Face Recognition Using Sift Descriptors of Face's Feature Regions**, New Trends in Computational Collective Intelligence, 2015.

16. **Nguyen Tran Lan Anh**, Vo Quang Nhat, and Guee-Sang Lee, *Object Segmentation based on Location Information for Level Set Method*, Proceedings of the 7th International Conference on Ubiquitous Information Management and Communication (ICUIMC), Jan. 2013.
17. **Nguyen Tran Lan Anh**, Vo Quang Nhat, Elyor Kodirov, Soo-Hyung Kim, and Guee-Sang Lee, *Fast Automatic Saliency Map driven Geometric Active Contour Model for Color Object Segmentation*, Proceedings of the 21st International Conference on Pattern Recognition (ICPR), Nov. 2012.
18. **Nguyen Tran Lan Anh**, Young-Chul Kim, and Guee-Sang Lee, *Morphological Gradient Applied to New Active Contour Model for Color Image Segmentation*, Proceedings of the 6th International Conference on Ubiquitous Information Management and Communication (ICUIMC), Feb. 2012.
19. **Nguyen Tran Lan Anh**, Nguyen Huy Hoang, Le Thi Khue Van, and Guee-Sang Lee, *Object Segmentation in Color Images using Distance Regularized Level Set*, Proceedings of the 3rd International Conference on Internet (ICONI), Dec. 2011.
20. **Nguyen Tran Lan Anh**, Jeong-Hwan Kim, and Guee-Sang Lee, *Camera Based Motion Tracking by Camera Images*, The Conference on Human-Computer Interaction (HCI), Jan. 2011.

### Refereed Journal Articles

1. Bahman Rashidi, Carol Fung, **Anh Nguyen**, Tam Vu, and Elisa Bertino, *Android User Privacy Preserving through Crowdsourcing*, IEEE Transactions on Information Forensics and Security (IEEE TIFS), 2017.
2. **Nguyen Tran Lan Anh**, Soo-Hyung Kim, Hyung-Jeong Yang, and Guee-Sang Lee, *Color Image Segmentation using a Morphological Gradient-based Active Contour Model*, International Journal of Innovative Computing Information and Control (IJICIC), Nov. 2013.
3. **Nguyen Tran Lan Anh** and Guee-Sang Lee, *Proximity based Object Segmentation in Natural Color Images Using Level Set Method*, Transactions on Fundamentals of Electronics, Communications, and Computer Sciences (IEICE), Aug 2013.
4. **Nguyen Tran Lan Anh** and Guee-Sang Lee, *Color Image Segmentation using Distance Regularized Level Set*, Journal of Korea Society for Internet Information (KSII), Aug. 2012.
5. **Nguyen Tran Lan Anh**, Phan Thi My Dung, and Pham The Bao, *Fingerprint Authentication System in Banking Transaction*, GESTS International Transactions on Computer Science and Engineering, May 2011.

### ACTIVITIES

- Technical Program Committee: 2017: ACM MobiCom - S<sup>3</sup> Workshop
- Journals Reviewer: IEEE Journal of Biomedical and Health Informatics
- Event Organizer: N<sup>2</sup>Women Meeting at MobiCom'17

### AWARDS & HONORS

- N2Women Young Researcher Fellowship Award from Networking Networking Women 2017
- NSF Student Travel Grant from ACM MobiSys 2017
- SIGMOBILE Research Highlight 2016
- NSF Student Travel Grant from ACM SenSys 2016
- NSF Student Travel Grant from CRA-Women Grad Cohort Workshop 2015

- Student Travel Grant for the Broadening Participation Workshop from ACM Ubicomp 2014
- Brain Korea 21 (BK21) Research Fund Sponsorship (Korea, 2010 – 2012).
- ITRC (Mobile Device Interface Research Center) Research Fund Sponsorship (Korea, 2010 – 2012).
- Chonnam National University Global Graduate Scholarship (Korea, 2010 – 2012).
- Chonnam National University Academic Achievement Award (Korea, 2012).