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## Jiaqi (Jackey) Gong

Associate Professor

Department of Computer Science  
The University of Alabama  
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### RESEARCH INTERESTS

Explainable Artificial Intelligence

Wearable Technology

Smart and Connected Health

Behavioral Informatics

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### RESEARCH EXPERIENCE

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| 2020-present | Associate Professor, Department of Computer Science, The University of Alabama   |
| 2018-present | Associate Editor, GetMobile: Mobile Computing and Communications, ACM SIGMOBILE Magazine   |
| 2017-2020    | Assistant Professor, Department of Information Systems, University of Maryland, Baltimore County   |
| 2014–2017    | Research/Senior Scientist, Joint Appointment in the Department of Electrical and Computer Engineering and the Department of Systems and Information Engineering, University of Virginia, Charlottesville, VA |
| 2013–2017    | Technical Coordinator, NSF Nanosystems Engineering Research Center (NERC) for Advanced Self-Powered Systems of Integrated Sensors and Technologies (ASSIST)  |
| 2013–2014    | Research Associate, Charles L. Brown Department of Electrical and Computer Engineering, University of Virginia, Charlottesville, VA  |
| 2011–2013    | Postdoctoral Researcher, Department of Electrical and Computer Engineering, The University of Alabama, Tuscaloosa, AL  |
| 2010–2011    | Postdoctoral Researcher, Department of Control Science and Engineering, Shanghai Jiao Tong University, Shanghai, China   |
| 2004–2010    | Graduate Research Assistant, Institute for Pattern Recognition & Artificial Intelligence, Huazhong University of Science and Technology, Wuhan   |
| 2002–2004    | Research Assistant, Computer Systems Lab, Department of Information Engineering, China University of Geosciences, Wuhan, China   |
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### EDUCATION

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| June 2010 | Ph.D. in Control Science and Engineering, Institute for Pattern Recognition & Artificial Intelligence, Huazhong University of Science and Technology, Wuhan, China |
| July 2004 | BS in English/Translation Theory, Department of Foreign Language, Huazhong University of Science and Technology, Wuhan, China                                      |

July 2004 BS in Telecommunication Engineering, Department of Information Engineering,  
China University of Geosciences, Wuhan, China

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## AWARDS

2019 Best Student Paper Award, International Conference on Body Sensor Networks

2018 Data Challenge Winning Team, The IEEE Conference on Biomedical and Health Informatics (BHI) 2018 and the IEEE Conference on Body Sensor Networks (BSN) 2018.

2016 Best Paper Finalist, IEEE Wireless Health Conference

2015 mHealth Scholarship, UCLA-NIH mHealth Summer Training Institute (mHTI),

2015 Best Paper Finalist, 12th International Conference on Wearable and Implantable Body Sensor Networks

2014 Best Paper Award, International Conference on Body Area Networks

2014 Best Demonstration Award, IEEE Wireless Health Conference

2013 Best Student Paper Award, IEEE Sensors Conference

2013 Best Paper Finalist, IEEE SENSORS Conference

2012 Best Paper Finalist, IEEE International Conference on Multisensor Fusion and Information Integration

2011 China Postdoctoral Science Foundation Award

2008 Outstanding Graduate Student Award, Huazhong University of Science and Technology

2007 Guanghua Fellowship, Ministry of Education, China

2004 Outstanding Bachelor Thesis Award, Hubei Province, China (top 1 out of 142)

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## GRANTS

### *Active*

Project Title: (PI) ***SCH: INT: Collaborative Research: Multiscale Modeling and Intervention for Improving Long-Term Medication Adherence in Context***  
\$1,000,000 National Cancer Institute, 1R01CA239246

Project Title: (PI) ***Examining Affective Dimension of Learning Using Ubiquitous Sensing and Computing Systems***  
\$10,000 UMBC Educational Research Fund

Project Title: (PI) ***Causal Modeling of Walking Impairment to Study Underlying Brain Mechanisms***  
\$6,000 UMBC Summer Research Faculty Fellowship (SURFF)

Project Title: (PI) ***A Data Collection System for Further Research In Exploring Neurophysiological Biomarkers Of Patients With Epilepsy***  
\$40,000 Gift from NeuroSynchrony, Inc.

### *Pending*

Project Title: ***FW-HTF: Augmenting Subconscious Perception and Protection for Emotionally***

*Demanding Works (PI).*

Project Title: **R01: PAR-18-519: Sensory and motor system changes as predictors of preclinical Alzheimer's disease (PI).**

Project Title: **NSF: SCH: Human-Centric Modeling of Relationship Development for Personalized Interventions in Early Adolescent Social Anxiety (PI).**

### **Finished**

Project Title: **STTR Phase I: Gait Tracker Shoe for Long Term Accurate Determination of Gait Parameters and Activity (Co-PI),** National Science Foundation, \$225,000: 01/01/15 - 12/31/15

Project Title: **ADE Undergraduate Medical Education Research and Innovation Grant: Objective Motion Metrics for Surgical Skills Training (Key Personnel),** University of Virginia, \$12,000, 09/01/15 - 08/31/16

Project Title: **Fast and Robust Image Point Sets Registration based on Probability Hypothesis Density and Gromov-Hausdorff Metric Theory (PI),** China Postdoctoral Science Foundation, ¥30,000: 09/01/11 - 8/31/12

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## **PUBLICATIONS**

### **Journals**

- [1] **Jiaqi Gong**, Yu Huang, Philip I. Chow, Karl Fua, Matthew S. Gerber, Bethany A. Teachman, and Laura E. Barnes. "Understanding Behavioral Dynamics of Social Anxiety Among College Students Through Smartphone Sensors." *Information Fusion* 49 (2019): 57-68. (**Impact Factor: 10.7**)
- [2] Ma, Rui, **Jiaqi Gong**, Guocheng Liu, and Qi Hao. "Enabling Cognitive Pyroelectric Infrared Sensing: From Reconfigurable Signal Conditioning to Sensor Mask Design." *IEEE Transactions on Industrial Informatics* (2019). (**Impact Factor: 7.4**)
- [3] Fan, Dawei, Luis Lopez Ruiz, **Jiaqi Gong**, and John Lach. "EHDC: An Energy Harvesting Modeling and Profiling Platform for Body Sensor Networks." *IEEE Journal of Biomedical and Health Informatics* (2017). (**Impact Factor: 4.2**)
- [4] Sriram Raju Dandu; Matthew M. Engelhard; Asma Qureshi; **Jiaqi Gong**; John Lach; Maite Brandt-Pearce; Myla Goldman, "Understanding the Physiological Significance of Four Inertial Gait Features in Multiple Sclerosis," *IEEE Journal of Biomedical and Health Informatics*, 2017. (**Impact Factor: 4.2**)
- [5] **Jiaqi Gong**, John Lach, Yanjun Qi and Myla D. Goldman, "Causality Analysis of Inertial Body Sensors for Multiple Sclerosis Diagnostic Enhancement", *Journal of Biomedical and Health Informatics*, Vol. 20, No. 5, Sep. 2016. (**Impact Factor: 4.2**)
- [6] **Jiaqi Gong**, Philip Asare, John Lach, and Yanjun Qi, "Piecewise Linear Dynamical Model for Action Clustering from Real-World Deployments of Inertial Body Sensors," *IEEE Transactions on Affective Computing*, Vol. 7, No. 3, Sep. 2016. (**Impact Factor: 6.3**)
- [7] Mandalapu, Varun, Benjamin Ghaemmaghami, Renee Mitchell, and Jiaqi Gong. "Understanding the relationship between healthcare processes and in-hospital weekend mortality using MIMIC III." *Smart Health* 14 (2019): 100084.

- [8] Mandalapu, Varun, and Jiaqi Gong. "Understanding Affective Dynamics of Learning Toward A Ubiquitous Learning System." *GetMobile: Mobile Computing and Communications* 23, no. 2 (2019): 9-15.
- [9] Karen M., Rose, John Lach, Yelena Perkhounkova, Jiaqi Gong, Sriram Raju Dandu, Robert Dickerson, Ifat Afrin Emi, Dawei Fan, Janet Specht, and John Stankovic. "Use of Body Sensors to Examine Nocturnal Agitation, Sleep, and Urinary Incontinence in Individuals with Alzheimer's Disease." *Journal of gerontological nursing* 44, no. 8 (2018): 19-26.
- [10] Jiaqi Gong, Qi Hao, and Fei Hu, "Transform-Invariant Feature Based Functional MR Image Registration and Neural Activity Modeling," *International Journal of Computational Biology and Drug Design*, Vol. 6, No. 3, pp. 175-189, 2013
- [11] Jiaqi Gong, Junbin Gong, and Jinwen Tian, "Using Star Trackers for Space Surveillance," *Journal of SPIE Newsroom*, Vol. 27, pp. 1-3, 2010
- [12] Weiting Li, Shugang Hou, Kai Lan, and Jiaqi Gong, "Key Technologies and Research Progress of the Adaptive Managed Pressure Drilling," *Natural Gas Industry*, Vol. 11, pp. 018-021, 2009
- [13] Jiaqi Gong, Lin Wu, Junbin Gong, Jie Ma and Jinwen Tian, "Flower Algorithm for Star Pattern Recognition in Space Surveillance with Star Trackers," *Optical Engineering*, Vol. 48, No. 12, pp. 124401/1-8, 2009

### *Conferences*

- [14] Varun Mandalapu and Jiaqi Gong. "Studying Factors Influencing the Prediction of Student STEM and Non-STEM Career Choice" In: *The 12th International Conference on Educational Data Mining*, Michel Desmarais, Collin F. Lynch, Agathe Merceron, & Roger Nkambou (eds.) 2019, pp. 607 - 610
- [15] Mandalapu V, Hart JM, Bodkin SG, Lach J, Homdee N, Jiaqi Gong. *Developing Computational Models for Personalized ACL Injury Classification*. 16th International Conference on Wearable and Implantable Body Sensor Networks (BSN), 2019, **Best Student Paper Award**
- [16] Charissa S. L. Cheah, Stephen P. Kaputsos, Varun Mandalapu, Truc Tran, Salih Barman, Sarah E. Jung, Kathy T. T. Vu, Travis D. Masterson, Ryan Zuber, Lee Boot, Jiaqi Gong. *Neurophysiological Variations in Food Decision-Making within Virtual and Real Environments*. 2019 IEEE International Conference on Biomedical and Health Informatics. Chicago, USA.
- [17] Alam Ridwan, David Peden, Jiaqi Gong, John Lach. *Non-Invasive Inference of Minute Ventilation Using Wearable ECG and Gaussian Process Regression*. 2019 IEEE International Conference on Biomedical and Health Informatics. Chicago, USA.
- [18] Varun Mandalapu and Jiaqi Gong, "Towards Better Affect Detectors: Detecting Changes rather than States", 19th International Conference on Artificial Intelligence in Education, London, UK, June 2018
- [19] Mehdi Boukhechba, Jiaqi Gong, Kamran Kowsari, Mawulolo Ameko, Karl Fua, Philip Chow, Yu Huang, Bethany Teachman, Laura Barnes, "Physiological Changes Over the Course of Cognitive Bias Modification for Social Anxiety", 2018 IEEE International Conference on Biomedical and Health Informatics. March 4-7, 2018, Las Vegas, NV, USA

- [20] Mehdi Boukhechba, Sonia Bae, Alicia Nobles, Jiaqi Gong, Kristen Wells, Laura Barnes, "A Social Cognitive Theory-Based Framework for Monitoring Medication Adherence Applied to Endocrine Therapy in Breast Cancer Survivors", 2018 IEEE International Conference on Biomedical and Health Informatics. March 4-7, 2018, Las Vegas, NV, USA
- [21] Benjamin Ghaemmaghami, Ridwan Alam, Jiaqi Gong, David Peden, John Lach, "Non-Invasive Minute Ventilation Monitoring for Respiratory Health Applications", 2018 IEEE International Conference on Biomedical and Health Informatics. March 4-7, 2018, Las Vegas, NV, USA
- [22] Haoyu Wang, Jiaqi Gong, Yan Zhuang, Haiying Shen, and John Lach, "Healthedge: Task Scheduling for Edge Computing with Health Emergency and Human Behavior Consideration in Smart Homes," IEEE International Conference on Big Data, Dec. 11-14, 2017, Boston, MA, USA.
- [23] Zhang, Jinghe, Jiaqi Gong, and Laura Barnes. "HCNN: Heterogeneous Convolutional Neural Networks for Comorbid Risk Prediction with Electronic Health Records." In Connected Health: Applications, Systems and Engineering Technologies (CHASE), 2017 IEEE/ACM International Conference on, pp. 214-221. IEEE, 2017.
- [24] Fan, Dawei, Jiaqi Gong, Benjamin Ghaemmaghami, Anyi Zhang, John Lach, and David B. Peden. "Characterizing and Calibrating Low-Cost Wearable Ozone Sensors in Dynamic Environments." In Connected Health: Applications, Systems and Engineering Technologies (CHASE), 2017 IEEE/ACM International Conference on, pp. 300-301. IEEE, 2017.
- [25] Alam, Ridwan, Joshua Dugan, Nutta Homdee, Neeraj Gandhi, Benjamin Ghaemmaghami, Harshitha Meda, Azziza Bankole, Martha Anderson, Jiaqi Gong, Tonya Smith-Jackson, and John Lach, "BESI: reliable and heterogeneous sensing and intervention for in-home health applications." In Connected Health: Applications, Systems and Engineering Technologies (CHASE), 2017 IEEE/ACM International Conference on, pp. 147-156. IEEE, 2017.
- [26] Alam, Ridwan, Jiaqi Gong, Mark Hanson, Azziza Bankole, Martha Anderson, Tonya Smith-Jackson, and John Lach. "Motion biomarkers for early detection of dementia-related agitation." In Proceedings of the 1st Workshop on Digital Biomarkers, pp. 15-20. ACM, 2017.
- [27] Huang, Yu, Jiaqi Gong, Mark Rucker, Philip Chow, Karl Fua, Matthew S. Gerber, Bethany Teachman, and Laura E. Barnes. "Discovery of Behavioral Markers of Social Anxiety from Smartphone Sensor Data." In Proceedings of the 1st Workshop on Digital Biomarkers, pp. 9-14. ACM, 2017.
- [28] Jiaqi Gong, Myla Goldman, and John Lach, "DeepMotion: A Deep Convolutional Neural Network on Inertial Body Sensors for Gait Assessment in Multiple Sclerosis," Wireless Health Conference, Baltimore, MD, USA, Oct. 2016
- [29] Dawei Fan\*, Jiaqi Gong<sup>1</sup>, and John Lach, "Eating Gestures Detection by Tracking Finger Motion," Wireless Health Conference, Baltimore, MD, USA, Oct. 2016
- [30] Jiang Lu, Lei Wu, Ting Zhang, and Jiaqi Gong, "Robot-assisted Intelligent Emergency System for Individual Elderly Independent Living," IEEE Global Humanitarian Technology Conference (GHTC), Seattle, WA, USA, 2016

- [31] Dawei Fan\*, Luis Lopez Ruiz\*, Jiaqi Gong<sup>1</sup>, and John Lach, “Profiling, Modeling, and Predicting Energy Harvesting for Self-Powered Body Sensor Platforms,” 13th International Conference on Wearable and Implantable Body Sensor Networks (BSN), 2016
- [32] Yan Zhuang\*, Jiaqi Gong, Casey Kerrigan, Brad Bennett, John Lach and Shawn Russell, “Gait Tracker Shoe for Accurate Step-by-step Determination of Gait Parameters”, 13th International Conference on Wearable and Implantable Body Sensor Networks (BSN), 2016
- [33] Jiaqi Gong, John Lach, Yanjun Qi and Myla D. Goldman, “Causal Analysis of Inertial Body Sensors for Enhancing Gait Assessment Separability towards Multiple Sclerosis Diagnosis”, 12th International Conference on Wearable and Implantable Body Sensor Networks (BSN), 2015 (***Best Paper Award Finalist***)
- [34] Jiaqi Gong, Matt Engelhard\*, Myla D. Goldman, John Lach, “Correlations between Objective Measures from Inertial Body Sensors and Subjective Measures from Clinical Evaluation”, BodyNets: 10th International Conference on Body Area Networks, Sydney, Australia, Sep. 2015
- [35] Jiaqi Gong, John Lach, “Motion Markers Discovery from Inertial Body Sensors for Enhancing Objective Assessment of Robotic Surgical Skills,” 4th International Symposium on Bioelectronics and Bioinformatics (ISBB), Beijing, China, October 2015
- [36] Jiaqi Gong, Karen Rose, Ifat Emi\*, Janet Specht, Enamul Hoque, Dawei Fan\*, Sriram Dandu\*, Robert Dickson, Yelena Perkhounkova, John Lach, John Stankovic, “Home Wireless Sensing System for Monitoring Nighttime Agitation and Incontinence in Patients with Alzheimer’s Disease,” Wireless Health Conference, Bethesda, MD, USA, Oct. 2015
- [37] Jiaqi Gong, Philip Asare\*, John Lach, and Yanjun Qi, “Piecewise Linear Dynamical Model for Actions Clustering from Inertial Body Sensors with Considerations of Human Factors,” BodyNets: 9th International Conference on Body Area Networks, London, UK, Sep. 2014 (***Best Paper Award***)
- [38] Jiaqi Gong and John Lach, “Reconfigurable Differential Accelerometer Platform for Inertial Body Sensor Networks,” IEEE Conference on Sensors, Baltimore, MD, USA, Nov. 2013 (***Best Paper Finalist***)
- [39] Jiang Lu\*, Jiaqi Gong, Qi Hao, and Fei Hu, “Multi-Agent based Wireless Pyroelectric Infrared Sensor Networks for Multi-Human Tracking and Self-Calibration,” IEEE Conference on Sensors, Baltimore, MD, USA, Nov. 2013 (***Best Student Paper Award***)
- [40] Jiang Lu\*, Jiaqi Gong, Qi Hao, and Fei Hu, “Space Encoding Based Compressive Multiple Human Tracking with Distributed Binary Pyroelectric Infrared Sensor Networks,” IEEE International Conference on Multisensor Fusion and Information Integration, Hamburg, Germany, Sep. 2012 (***Best Paper Award Finalist***)
- [41] Jiaqi Gong, Hui Ge and Zhongliang Jing, “Visual Analysis for 2-D Point Set Matching,” 23rd Chinese Control and Decision Conference, Mianyang, China, May 2011
- [42] Jiaqi Gong and Zhongliang Jing, “A Texture-Based Method for Autonomous Star Identification,” International Conference on Electric Information and Control Engineering, Wuhan, China, Apr. 2011

- [43] Kai Lan, Shugang Hou, Jiaqi Gong, Youming Xiong, and Chengkai Li, “Development of Downhole Explosion Monitoring System for Gas Drilling,” International Oil and Gas Conference and Exhibition, Beijing, China, June 2010
  - [44] Jiaqi Gong, Jie Ma and Jinwen Tian, “A Flower Algorithm for Autonomous Star Pattern Recognition,” 47th AIAA Aerospace Sciences Meeting Including the New Horizons Forum and Aerospace Exposition, Orlando, Florida, USA, 2009
  - [45] Jiaqi Gong, Lin Wu, Junbin Gong, Jie Ma, Jinwen Tian, “A Flower Algorithm for Autonomous Star Identification in Space Surveillance,” Sixth International Symposium on Multispectral Image Processing and Pattern Recognition, Yichang, China, Sep. 2009
  - [46] Lin Wu, Jiaqi Gong, Hua Cheng, Jie Ma, and Jinwen Tian, “New method of underwater passive navigation based on gravity gradient,” 5th International Symposium on Multispectral Image Processing & Pattern Recognition, Wuhan, China, Nov. 2007
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### Invited Talks

- 10/2013 Department of Electrical and Computer Engineering, University of Alabama, *Title: “Ultra-Low Power Inertial Measurement Unit for Self-Powered Body Sensor Networks”*
- 06/2015 3rd Intl. Symposium on Automated Sensor Based Mobility Analysis for Disease Prevention and Treatment in conjunction with 12th International Conference on Wearable and Implantable Body Sensor Networks (BSN), 2015, *Title: “Model-based Inertial Body Sensors: Leveraging Knowledge from Domain Experts”*
- 09/2015 Department of Computer Science, Huazhong University of Science and Technology, *Title: “Wireless and Mobile Health: Challenges and Future Directions”*
- 09/2015 School of Automation, China University of Geoscience, *Title: “Machine Learning from Bid Data for Medical Diagnostic Enhancement”*
- 10/2015 School of Information Engineering, Beijing Institute of Technology, *Title: “Body Sensor Networks for Wireless Health”*
- 10/2015 Institute for Energy Retrieval, China SINOPEC, *Title: “Recording and Mining Big Data for High Frequency Downhole Dynamic Analysis towards Smart, Safe and Substantial Energy Retrieval”*
- 10/2015 SACNAS 2015 National Conference, Workshop on “The Next Generation of Wearable Sensing”, *Title: “Medical Diagnostic Enhancement Using Wearable Sensors”*
- 02/2016 Department of Computer Science, University of Georgia, *Title: “Wearable Informatics and Body-Powered Sensor System”*
- 03/2016 Department of Electrical and Computer Engineering, San Diego State University, *Title: “Model-based and Body-Powered Wearable Sensors for Smart and Connected Health”*
- 08/2016 Center for Advanced Medical Analytics, University of Virginia, *Title: “Reconciliation between Humans and Computers-Connecting Emotion, Brain*

*and Behavior with Wearables”*

- 01/2017 Department of Information Systems, University of Maryland, Baltimore County, Title: “*Learning Underlying Control Principles of Cyber-Human Systems*”
- 02/2017 College of Computing, DePaul University, Title: “*Cyber-Physical Systems in Healthcare: Monitoring, Modeling, and Modifying Human Behavior, Emotions, and Brain*”
- 04/2017 Department of Computer Science and Electrical Engineering, Washington State University, Title: “*Data Mining in Healthcare: Monitoring, Modeling, and Modifying Human Behavior, Emotions, and Brain*”
- 09/2017 IBM T.J. Watson Research Center, NY, Title “*Enhancing the Real-World Effectiveness of Cognitive Interventions through Smartphones and Wearables*”
- 09/2018 Department of System Engineering, University of Virginia, Title: “*Learning Underlying Control Principles of Cyber-Human Systems*”
- 10/2019 Department of Mechanical Engineering, Michigan Technological University, Title: “*Data Contextualization in Health, Education, and Workplace*”
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#### **TEACHING EXPERIENCE**

- 2018-2019 “Decision Support Systems” (Undergraduate-level), Department of Information Systems, University of Maryland, Baltimore County
- 2017-2018 “Health Informatics I & II” (Undergraduate and Graduate-level), Department of Information Systems, University of Maryland, Baltimore County
- Fall 2014-2016 “ECE MDE Lab: Body Sensor Networks” (Undergraduate-level), Charles L. Brown Department of Electrical and Computer Engineering, University of Virginia
- Fall 2012 “Special Topic: Understanding TinyOS in ECE 693: Advanced Programming for Mobile Devices” (Graduate-level), Department of Electrical and Computer Engineering, The University of Alabama
- Fall 2012 "Special Topic: Debugging Techniques in ECE 285: Programming for Electrical and Computer Engineering" (Undergraduate-level), Department of Electrical Engineering, The University of Alabama
- Spring 2009 “High Frequency Electronic Circuits” (Undergraduate-level), Department of Engineering and Electronic Information, Jiangcheng College, China University of Geoscience, Wuhan, China
- Fall 2008 “Signal and Systems” (Undergraduate-level), Department of Engineering and Electronic Information, Jiangcheng College, China University of Geoscience, Wuhan, China
- Fall 2008 “Signal Processing for Speech Recognition” (Undergraduate-level), Department of Engineering and Electronic Information, Jiangcheng College, China University of Geoscience, Wuhan, China



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## MENTORING

Students at The Sensor-Accelerated Intelligent Learning Laboratory, University of Maryland, Baltimore County

### *PhD students*

- Mandalapu, Varun (Graduate Research Assistant in IS, started from January 2018)
- Kim, Dae-Young (Graduate Research Assistant in IS, started from January 2019)
- Lee, Heera (Graduate Research Assistant in HCC, started from August 2019)

### *Master Students*

- Tran, Truc (IS graduate student, contributed in a research project in May 2018)
- Surely, Akiri (Graduate Research Assistant in HCC, started from January 2019)
- Zhu, Xishi (Graduate Research Assistant in IS, beginning in August 2019)
- Kennedy, Sophia (Graduate Research Assistant in CS, started from May 2019)
- Javvaji, Ramya Sree (Graduate Independent Study in HCC, started from January 2019)
- Jia, Jinnuo (Graduate Independent Study in IS, Summer 2019)
- Song, Xue (Graduate Independent Study in HCC, Summer 2019)

### *Undergraduate Students*

- Kaputsos, Stephen P. (Undergraduate Research Assistant in IS, from May 2018 to January 2019) Graduated in December 2018, and joined MIT graduate program.
- Ogun, Olakunmi K (Undergraduate Independent Study in IS, started from January 2019) Presented a poster in URCAD 2019, titled “Understanding the Emotional Lives of Underrepresented Engineering Students in Context.”
- Shaw, Jacob (Undergraduate Research Volunteer from IS425 course, started from January 2019) Presented a poster in URCAD 2019, titled “Intelligent Wearable Sensors for Preventing Anterior Cruciate Ligament Reinjury.”

Research Experience Program, University of Virginia, 2013-2016

High School Teachers: Marc Counterman (2016), Stephen Kostyo (2016)  
Diana Webber (2015-2016),

High School Students: Cameron Reid (2016), Asher Saunders (2016)  
Janaya Mott (2015), Corrine Carrington (2015)

Undergrads: Jessica Covan (2016), Alyson Irizarry (2016), Erica Maisy (2016)  
Marcellus Black (2015), Karen Alvarez (2015)  
Jon-Julius Lindsay (2014), Brandon Speed (2013)

Students from Department of Electrical and Computer Engineering, University of Virginia

- Dawei Fan (PhD student, advisor: John Lach)
- Ridwan Alam (PhD student, advisor: John Lach)
- Yan Zhuang (PhD student, advisor: John Lach)
- Ying Xu (PhD student)

- Anyi Zhang (Master student)
- Nutta Homdee (PhD student, advisor: John Lach)
- Matthew Ridder (Master student, advisor: John Lach)
- Sriram Raju Dandu (Master student, advisor: John Lach)
- Luis J. Lopez Ruiz (Master student, advisor: John Lach)
- Victor Sobral (Visiting PhD student, advisor: John Lach)
- Joshua Eric Dugan (Master student, advisor: John Lach)
- Neeraj Gandhi (undergraduate student)
- Marcellus Black (undergraduate student)
- Abdul Ahad Khan (undergraduate student)
- Benjamin Ghaemmaghami (undergraduate student)
- William Devine (BS ECE 2014) Now hardware engineer at Alarm.com
- Anish Simhal (BS ECE 2014) Now graduate school in Duke University
- Davis Blalock (BS ECE 2014) Now graduate school in MIT

Students from Department of Computer Science, University of Virginia

- Philip Asare (PhD CS 2015), Now Assistant Professor of Bucknell University

Students from Department of Mechanical Engineering, University of Virginia

- Travis T. Simpson (PhD student, advisor: Brad Bennett)

Students from Interdisciplinary Departments, University of Virginia

- Matt Engelhard (MD/PhD student, advisor: Stephen Patek, Myla Goldman)

Students from Department of Electrical and Computer Engineering, The University of Alabama

- Rui Ma (PhD student, advisor: Qi Hao)
- Jiang Lu (PhD), Now Assistant Professor of University of Houston-Clear Lake

## **PROFESSIONAL SERVICES**

### **Reviewer for NSF and NIH Programs**

### **Reviewer for Journals**

- Operations Research for Health Care
- American Journal of Alzheimer's Disease and Other Dementias
- IEEE Transactions on Human-Machine Systems
- IEEE Internet of Things Journal
- ACM Transaction on Embedded Computing Systems
- IEEE Sensors Journal
- Sensors
- Optical Engineering
- Electronics Letters

- IEEE Transactions on Aerospace and Electronic Systems
- IEEE Transactions on Signal Processing
- IEEE Transactions on Industrial Informatics
- IEEE Transactions on Industrial Electronics
- IEEE Transactions on Biomedical Engineering
- IEEE Transactions on Knowledge and Data Engineering
- Sensors and Actuators A – Physical

## Services

### TO THE DEPARTMENT

- 2017-2019 Coordinator of NSF PD Visit (SCH, Wendy Nilsen; IIS, Tonya Smith-Jackson) to the Department of Information Systems
- 2019 Chair of Search Committee of GPD in HIT
- 2018 Member of Graduate Program Committee
- 2018 Department Representative, UMBC New Student Day
- 2019 Department Representative, UMBC Just for Juniors Day

### TO THE UNIVERSITY

- 2019 Vice Chair of Asian & Asian American Faculty & Staff Council
- 2017 Presenter at Interdisciplinary Social Hour Event, UMBC
- 2018 Member, Internal Advisory Board, CWIT at UMBC
- 2018 Faculty Mentor, CWIT scholars
- 2018 Faculty Advisor, UMBC's 40<sup>th</sup> Annual Graduate Research Conference: Interdisciplinary Innovations (GRC)

## PROFESSION

### Associate Editor

- 2019 IEEE International Conference on Biomedical and Health Informatics. Chicago, USA

### Local Chair

- 2019 IEEE/ACM 4th International Conference on Connected Health: Applications, Systems, and Engineering Technologies (CHASE)

### Technical Program Committee

- 2019 IEEE/ACM 4th International Conference on Connected Health: Applications, Systems, and Engineering Technologies (CHASE)
- 2019 IEEE International Conference on Biomedical and Health Informatics. Chicago, USA
- 2019 IEEE 15th International Conference on Wearable and Implantable Body Sensor Networks (BSN)
- 2018 IEEE 15th International Conference on Wearable and Implantable Body Sensor Networks (BSN)
- 2018 IEEE/ACM 3rd International Conference on Connected Health: Applications, Systems, and Engineering Technologies (CHASE)
- 2015 Ubi-Health Tech (2nd International Symposium on Future Information and Communication Technologies for Ubiquitous HealthCare)
- 2015 IEEE ICC (International Conference on Communications) Symposium on Mobile and Wireless Networking

2015/2016 ICCCN 2015 & 2016 (The 24th & 25th International Conference on Computer Communications and Networks)

**Publicity Chair**

2017 The 14th IEEE International Conference on Ubiquitous Intelligence and Computing (UIC 2017)

**Session Chair**

2017 IEEE International Conference on Big Data, Dec. 11-14, 2017, Boston, MA, USA

2018 IEEE 15th International Conference on Wearable and Implantable Body Sensor Networks (BSN)

**Program Co-Chair**

2015 The International Workshop on Self-Powered Systems, Engineering Technologies and Applications (SETA), in conjunction with International Green and Sustainable Conference at Las Vegas, Nevada, USA

**Publicity Co-Chair**

2015 HealthCom (17th International Conference on E-health Networking, Applications & Services)

**Society Memberships**

- Member, Association for Computing Machinery (ACM)
- Member, Institute of Electrical and Electronics Engineers (IEEE)
- Member, American Medical Informatics Association
- Member, American Association for the Advancement of Science (AAAS)

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**TECHNICAL SKILLS**

C, C++, Python, Verilog, Cadence, ARM, MSP430, MATLAB, Windows, Linux, Android/Java

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