

# Adeola Bannis

Carnegie Mellon University  
5000 Forbes Ave  
Dept. of Electrical and Computer Engineering  
Pittsburgh, PA 15213-3890

Mobile: (412) 589 2474  
abannis@andrew.cmu.edu

---

## EDUCATION

---

<b>Carnegie Mellon University</b> , Pittsburgh, PA PhD Electrical and Computer Engineering	Jan 2015-May 2020
<b>Carnegie Mellon University</b> , Pittsburgh, PA M.S. Electrical and Computer Engineering <i>Honors</i> : Eta Kappa Nu	Aug 2013-May 2014
<b>Carnegie Mellon University</b> , Pittsburgh, PA B.S. Electrical and Computer Engineering <i>Honors</i> : University Honors	Aug 2006-May 2010

---

## RESEARCH INTERESTS

- 
- IoT as Wireless Actuator/Sensor Network
- Authentication using human interactions
  - Sound-based localization of mobile/autonomous device using motors
  - Authenticated actuation
- 

## PUBLICATIONS

---

Pan, S., Ruiz, C., Han, J., Bannis, A., Tague, P., Noh, H.Y. and Zhang, P. 2018. UniverSense: IoT Device Pairing through Heterogeneous Sensing Signals. In *Proceedings of the 19th International Workshop on Mobile Computing Systems & Applications (HotMobile '18)*. ACM.

Bannis, A., Noh, H.Y., and Zhang, P. 2017. Poster Abstract: Interdependent Component Framework for Simulating Indoor Internet-of-Things Systems (Intercom). In *Proceedings of the 16th ACM/IEEE International Conference on Information Processing in Sensor Networks (IPSN '17)*. ACM.

Shang, W., Bannis, A. et al. 2016. Named Data Networking of Things. In *Proceedings of 2016 IEEE First International Conference on Internet-of-Things Design and Implementation (IoTDI '16)*. IEEE.

Mirshekari, M., Pan, S., Bannis, A., Lam, Y.P.M., Zhang, P. and Noh, H.Y., 2015. Step-level person localization through sparse sensing of structural vibration. In *Proceedings of the 14th International Conference on Information Processing in Sensor Networks (IPSN '15)*. ACM.

Bannis, A., Pan, S., and Zhang, P. 2014. Adding directional context to gestures using doppler effect. In *Proceedings of the 2014 ACM International Joint Conference on Pervasive and Ubiquitous Computing: Adjunct Publication (UbiComp '14 Adjunct)*. ACM.

---

## AWARDS

---

**CMU Build18** Jan 2016

Harris Corporation Sponsor Award, Smart Pill Bottle with Android notification app

---

## TEACHING EXPERIENCE

---

**Carnegie Mellon University**, Pittsburgh, PA, USA Aug 2018 - Dec 2018

Teaching Assistant, **Foundations of Computer Systems**

- Teaching weekly remote classroom recitation (CMU Rwanda)
- Setting and grading bi-monthly programming assignments

**Carnegie Mellon University**, Pittsburgh, PA, USA Jan 2017-May 2017

Teaching Assistant, **Sensor Networks and Data Mining for Smart Structures and Systems**

- Assisted students with semester-long smart building/infrastructure project

**Carnegie Mellon University**, Pittsburgh, PA, USA Aug 2015-Dec 2015

Teaching Assistant, **Foundations of Computer Architecture**

- Designed and graded group assignments and final exam questions

**Carnegie Mellon University**, Pittsburgh, PA, USA Aug 2013-May 2014

Teaching Assistant, **Introduction to Electrical and Computer Engineering**

- Supervised and assisted students in learning lab techniques
  - Graded homework and exams
- 

## PROFESSIONAL EXPERIENCE

---

**UCLA REMAP**, Los Angeles, CA, USA Jun 2014-Jan 2015

Research Assistant

- Designed and implemented Pi-NDN toolkit for introducing Raspberry Pi users to Internet of Things applications of Named Data Networking (NDN)
- Assisted with implementation, documentation and testing of open source Python and Javascript libraries for NDN
- Analyzed NDN network performance w.r.t. speed, complexity, and resource use in comparison to other IoT frameworks

**Brit Media**, San Francisco, CA, USA Aug 2012-Mar 2013

Mobile Developer

- Updated the Brit + Co. iOS and Android apps
- Integrated analytics, bug tracking and other third-party frameworks

**Callaway Digital Arts**, San Francisco, CA, USA Nov 2011-Jul 2012

iOS Engineer

- Contributed to a powerful in-house animation engine used in children's books and activity apps
- Ported the animation engine to Android in C++ through the Android NDK

**Apple**, Cupertino, CA, USA

Aug 2010-Oct 2011

iOS SW Engineer

- Contributed to development of iOS 5 SpringBoard/Home Screen
- Debugged and integrated new features such as the notification center and Siri

---

## **SOCIETY & ORGANIZATION MEMBERSHIPS**

---

IEEE

- Computer Society
- Women in Engineering
- Communications Society
- Computational Intelligence Society
- Signal Processing Society
- Eta Kappa Nu

ACM

- Committee on Women in Computing
- SIGMOBILE
- SIGBED

NSBE

- Student Member, 2006-2010
- Professional Member, 2013-Present

CMU Black Graduate Student Organization

- Member, 2015-Present
- Secretary, 2017-2018
- Community Service Chair, Present