

Mohamed Assem Ibrahim

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RESEARCH INTERESTS

My research interests lie in all aspects of computer architecture, including data-parallel architectures (e.g., GPUs), CPU-GPU heterogeneous architectures, and interconnection networks.

EDUCATION

- **College of William and Mary (W&M)** **Spring 2016 – Present**
Ph.D. Candidate in Computer Science Department
Current GPA = 4
Williamsburg, VA
- **Cairo University (CU)** **Fall 2010 – Fall 2015**
M.Sc. in Computer Engineering
GPA = 4
Giza, Egypt
- **Cairo University (CU)** **Fall 2005 – Spring 2010**
B.Sc. (Hons.) in Computer Engineering
GPA = 3.91 (Calculated with Foreign Credits GPA Calculator)
Giza, Egypt

PROFESSIONAL EXPERIENCE

- **College of William and Mary (W&M)** **January 2016 – Present**
Research Assistant
Advisor: Assistant Professor Adwait Jog
Williamsburg, VA
- **Cairo University (CU)** **August 2010 – December 2015**
Research Assistant
Advisor: Professor Hatem El-Boghdadi
Giza, Egypt
- **Nile University (NU)** **June 2012 – June 2013**
Research Software Development Engineer (RSDE)
Advisor: Associate Professor Tamer ElBatt
My role was to conduct research and create functional prototypes related to predictive loading of content on mobile phones based on user modeling. The results of this work are published in ICC 2014 and MobiSys 2013.
Giza, Egypt
- **Inmobly** **October 2011 – June 2013**
Software Engineer
Manager: Professor Hesham ElGamal
Mentor: Associate Professor Nayer Wanas
My role was to implement some of the required functionalities for several mobile applications. In *PAUL*, I implemented logging and reporting modules (for WiFi, content usage and battery), and scripts to analyze the logs and to build the user profile to correctly predict the different users' behavior. In *inFootball*, I implemented the news crawler and the handlers for the different clientside requests. In *Agenda25*, I implemented the BlackBerry version of the application.
Giza, Egypt

AWARDS, GRANTS, and HONORS

- Teaching Assistantship, College of William and Mary, 2016
- Student Travel Grants for attending: ISCA 2015
- Teaching/Research Assistantship, Cairo University, 2010
- Best Graduation Project (Software Engineering Category), Egyptian Engineering Day (EED), IEEE GOLD, 2010

PUBLICATIONS

- [**HPCA 2017**] Xulong Tang, Ashutosh Pattnaik, Huaipan Jiang, Onur Kayiran, Adwait Jog, Sreepathi Pai, Mohamed Ibrahim, Mahmut Kandemir, Chita Das, *Controlled Kernel Launch for Dynamic Parallelism in GPUs*, In the Proceedings of 23rd International Symposium on High-Performance Computer Architecture (HPCA), Austin, USA, Feb, 2017 **Acceptance rate: 50/224 \approx 22%**
- [**M.Sc. Thesis 2015**] Mohamed Ibrahim, *On Enhancing the Performance of Bufferless Network-on-Chip*, M.Sc. Thesis, Cairo University, Giza, Egypt, 2015
- [**MES 2015**] Mohamed Ibrahim, Hatem M El-Boghdadi, *Investigating the Viability of Maximum Flexibility Selection Function in Bufferless 2D Meshes*, In the Proceedings of 3rd International Workshop on Many-core Embedded Systems (MES), Portland, OR, June, 2015
- [**ICC 2014**] Omar Shoukry, Mohamed Ibrahim, John Tadrous, Hesham El Gamal, Tamer ElBatt, Nayer Wanas, Yaser Elnakieb, and Mohamed Khairy *Proactive Scheduling for Content Prefetching in Mobile Networks*, In the Proceedings of IEEE International Conference on Communications (ICC), Sydney, Australia, June, 2014 **Acceptance rate: 995/2,608 \approx 38%**
- [**MobiSys 2013**] Mohamed Ibrahim, Omar Shoukry, Hesham El Gamal, Tamer ElBatt, Nayer Wanas, Mohamed Abdel Raouf, Mohamed Zakaria, Ahmed Abdel Kader and Hakem Zayed *PAUL Proactive Automated mobile User centric content deLivery*, In the Proceedings of 11th International Conference on Mobile Systems, Applications, and Services (MobiSys), Taipei, Taiwan, June, 2013

TEACHING EXPERIENCE

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|--|-------------|
| • Teaching Assistant@W&M, CS 424/524, Computer Architecture | Fall 2016 |
| • Teaching Assistant@W&M, CS 421, Database Systems | Spring 2016 |
| • Teaching Assistant@W&M, CS 131, Concepts of Computer Science | Spring 2016 |
| • Teaching Assistant@CU, CMP 101A, Logic Design | Fall 2015 |
| • Teaching Assistant@CU, CMP 301A, Computer Architecture | Fall 2015 |
| • Teaching Assistant@CU, CMP 101B, Logic Design | Spring 2015 |
| • Teaching Assistant@CU, CMP 101A, Logic Design | Fall 2014 |
| • Teaching Assistant@CU, CMP 201A, Microprocessor Systems | Fall 2014 |
| • Teaching Assistant@CU, CMP 201B, Microprocessor Systems | Spring 2014 |
| • Teaching Assistant@CU, CMP 101A, Logic Design | Fall 2013 |
| • Teaching Assistant@CU, CMP 201A, Microprocessor Systems | Fall 2013 |
| • Teaching Assistant@CU, CMP 101B, Logic Design | Spring 2013 |

- **Teaching Assistant@CU**, CMP 101A, Logic Design **Fall 2012**
- **Teaching Assistant@CU**, CMP 301A, Computer Architecture **Fall 2012**
- **Teaching Assistant@CU**, CMP 206, Multimedia **Spring 2012**
- **Teaching Assistant@CU**, CMP 405A, Computer Networks **Fall 2010**

EXTERNAL PROFESSIONAL SERVICE AND MEMBERSHIPS

- Member of ACM, IEEE, ACM SIGARCH