

# Ahmed Ibrahim

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## SUMMARY

Ph.D. Candidate with mixed Academia and Industry experience in Software Engineering, Machine Learning, Deep Learning, and Computer Vision. Looking for a full-time position starting December 2017 that will advance existing skills and allow the development of new ones. <sup>1</sup>

## EDUCATION

**Ph.D. : COMPUTER ENGINEERING** | [Virginia Tech](#)  
Deep Learning, Computer Vision. 2012–2017 | Blacksburg, VA, USA

**MASTER: COMPUTER ENGINEERING** | [Benha University](#)  
Light Weight Agents for Intrusion Detection. 2003–2007 | Cairo, Egypt

**BACHELOR: COMPUTER ENGINEERING** | [Benha University](#)  
1996–2001 | Cairo, Egypt

## SKILLS

**MACHINE LEARNING|DEEP LEARNING:** Python, Matlab, Caffe, TensorFlow, Keras, Torch

**PROGRAMMING:** Python, C#, C++, VB(6,.NET)

**HIGH PERF. COMPUTING:** Moab/Torque, Splunk, Zabbix

**WEB|MOBILE:** ASP.NET, ASP classic, JavaScript, Bootstrap, SQL(MySQL, MSSQL), Android

**SYSTEMS ADMINISTRATION:** Linux Servers: Centos, Ubuntu, Bash scripting

**EMBEDDED SYSTEMS:** Raspberry PI, X86 Assembly

## PROFESSIONAL EXPERIENCE

**GRADUATE RESEARCH ASSISTANT** | [Advanced Research Computing](#)  
May 2017 – Present | Virginia Tech, USA

- Build, Install new software on VT Linux clusters.
- Provide technical support for the user of VT Hi. Perf. Computing (HPC) resources.

**GRADUATE ASSISTANT** | [Institutional Research Office](#)  
Sept. 2014 – Aug. 2017 | Virginia Tech, USA

- Developer: the office front and back end (ASP.NET/C#, SSRS, and MSSQL server)
- Dev. & Admin.: eFARS System (Symplectic Elements, SSRS, SQL)

**ANDROID DEVELOPER** | [Edge networks](#)  
May 2014 – Aug. 2014 | Reston, VA, USA

- Developing a secure VOIP android client based on linphone open source client.

**GRADUATE RESEARCH ASSISTANT** | [US Department of Defense \(DoD\)](#)  
Aug. 2013 – Mar. 2014 | Virginia Tech, USA

- Developing an android application that connects a smart phone to an Infra-Red Military Camera to handle the captured images and videos.

**SW ENGINEERING /SYS. ENGINEERING TEAM LEADER** | [Metech](#)  
Jul. 2004 – Aug. 2012 | Cairo, Egypt

- Lead a team of software developers to design and implement large software systems.
- Managed and participated in the complete process of the Implementation, and support for the access control and ticketing system in Cairo stadium, Giza pyramids, Coptic museum, Dandara Temple, and other places.
- participated in the implementation the VTMS systems at Alexandria marine port.

<sup>1</sup>Visa Status: On a student visa that allows me to work without sponsorship for 3 years.

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## PROFESSIONAL EXPERIENCE CONTINUED

### TEACHING ASSISTANT | [Benha University](#)

Jan. 2002 – Aug. 2011 | Cairo, Egypt

- Teaching Classes: Intel microprocessor, Intel Assembly, computer networks, Data security, Operating systems, Neural Networks, Computer architecture, Data structures.
- Labs: C++, VB6 programming, Intel x86 Simulation Kit, Oracle developer, SQL\*Plus

### SOFTWARE DEVELOPMENT TEAM LEADER | [Al-Attia Qatar](#)

Mar. 2008 – Jan. 2009 | Cairo, Egypt

- Establish the company branch in Egypt and Hire software developers.
- Lead a team of Software developers to build large scale software systems.

### SOFTWARE ENGINEER | [Metech](#)

Jul. 2001 – Jul. 2004 | Cairo, Egypt

- Participate in feasibility studies, business process re-engineering, Analyzing, Design, and implementation of Oracle database applications (Schema, Forms, and Reports).
- Perform Oracle Database installation, administration, and data migration.

## ACHIEVEMENTS

- Used Artificial Intelligence to plan the country-wide marketing campaign for Novartis Opth., Egypt
- Overcame SW and HW incompatibilities while integrating various systems in Cairo stadium, Egypt.
- Finished the Cairo stadium project on time (Working 11 hours/day, 6days/week for 3 months).
- Established the software development division of Al-Attia Qatar in Egypt
- Enable OTG in Nexus 4 with Android 4.3, The Wild Life project, Virginia Tech, USA
- Volunteered to manage the lab server and train other students to use it, Virginia Tech USA

## AWARDS AND RECOGNITION

- Best Poster presentation CESCO day 2016 Virginia Tech, USA
- Bonus for exceeding expectations, 2014, Edge Networks, USA
- Best Poster presentation ICIP Conference 2013 London, UK
- One-year worth of salary as a bonus for efforts and creativity, 2008, Metech, Egypt
- Ranked 5th over the College of Engineering (near one thousand graduates) 2001, Benha Univ., Egypt

## PUBLICATIONS

- Ibrahim, Ahmed S., A. Lynn Abbott, M. Hussien, "Nested auxiliary branches for improved learning in very deep networks", To be submitted.
- Ibrahim, Ahmed S., A. Lynn Abbott, M. Hussien, "Input Fast-Forwarding for Better Deep Learning", 14th International Conference on Image Analysis and Recognition (ICIAR), Montreal, Canada, 2017
- Ibrahim, Ahmed S., A. Lynn Abbott, M. Hussien, "An Image Dataset of Text Patches in Everyday Scenes", 12th International Symposium on Visual Computing, USA, 2016.
- Ibrahim, Ahmed S., Amira E. Youssef, and A. Lynn Abbott. "Global vs. Local features for Gender Identification using Arabic and English Handwriting." IEEE International Symposium on Signal Processing and Information Technology, December, 2014.
- Youssef, A. E., Ahmed S. Ibrahim, and A. Lynn Abbott, "Automated Gender Identification for Arabic and English handwriting", 5th International Conference on Imaging for Crime Detection and Prevention (ICDP), London, UK, December, 2013. (Awarded best poster)
- Youssef, A. E., Sherin F. Aly, Ahmed S. Ibrahim, and A. Lynn Abbott. "Auto-Optimized Multimodal Expression Recognition Framework Using 3D Kinect Data for ASD Therapeutic Aid.", International Journal of Modeling and Optimization (IJMO), Vol. 3, No. 2, pp. 112-115, April, 2013
- Y.H. Dakroury, R. A. El-Kammar, M. I. Sharaawy, & A. S. El-Nady Ibrahim, "Agent-Based Intrusion detection Using Hidden Markov Model", Scientific Bulletin Faculty of Engineering, Ain Shams University, Vol. 42, No. 1, March 31, 2007.