

Ali Shahbazi

Computer Science and Engineering
University of Notre Dame
Email: ashahbaz@nd.edu
<http://eliashahbazi.com/>
Phone: (252) 412-0207

Research Interests

Computer Vision, Deep Learning, Machine Learning, Neuroscience, Brain Science, Medical Imaging, visualization, and analysis of Medical Imaging.

Education

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| <i>Aug 2014 – Present</i> | Ph.D. candidate, Computer Science, and Engineering
University of Notre Dame, IN, USA |
| <i>Aug 2012- Jun 2014</i> | MSc, Software Engineering
East Carolina University, NC, USA (<i>GPA 4.0 out Of 4.0</i>) |
| <i>Sep 1997 – Jul 2003</i> | BS Applied Mathematics
Sharif University of Technology, Iran |

Research Experience

- Research as MICrONs Group member in IARPA Project in brain mapping (www.IARPA.org)
- Neural Circuit Reconstruction
- Meta-Recognition, prediction of deep learning system
- Fast and Robust Framework for unsupervised sparse reconstruction of Brain Neuron Networks.
- Hide and Share, New framework for Bioinformatics security
- Proposed and developed a new security framework for Hybrid Clouds (Treasure Island Security Framework).
- Publicly Verifiable Secret Sharing Approaches in Cloud security

Publications (Journal, Conference)

1. **Fast Learning-free 2D Segmentation and 3D Reconstruction for Sparse Neuronal Circuit Tracing with multi-modality datasets**
“Ali Shahbazi, Maximilian Joesch, David Mankus, Narayanan Kasthuri, Walter J Scheirer”
PLoS computational biology (submit, April 2017)
2. **Reconstruction of genetically identified neurons imaged by serial-section electron microscopy**
“Maximilian Joesch, David Mankus, Masahito Yamagata, Ali Shahbazi, Richard Schalek, Adi Peleg, Markus Meister, Jeff W. Lichtman, Walter J Scheirer, Joshua R. Sanes”
eLife sciences (Published July 7, 2016)
3. **Private Computation with Genomic Data for Genome-Wide Association and Linkage Studies**
Ali Shahbazi, Fattaneh Bayatbabolghani, Marina Blanton
3rd International Workshop on Genome Privacy and Security (GenoPri'16)
4. **A Distributed Key Based Security Framework For Private Clouds**
Ali Shahbazi, J Brinkley, MHN Tabrizi
International Journal of Advanced Computer Science and Applications(IJACSA VOLUME 4 ISSUE 9 - Oct 2013), (Impact Factor = 1.324)
5. **Treasure Island Security framework: A Generic Security Framework for public clouds**
Ali Shahbazi, MHN Tabrizi (2014). (East Carolina University, Master Thesis)

Awards and Affiliations

- Graduated with Honor from East Carolina University, Master of Science in Software Engineering
- Certified Tester, ISTQB certification (International Software Testing Qualification Board)
- Best graduate assistant award 2013 (Software Engineering & Computer Science Dept.)
- Nominated as Excellent Research in East Carolina Research Week (2013)
- ACM Chapter acknowledgment 2013
- ACM Webmaster East Carolina University since 2012-2013.

Teaching Experience

- **Instructor**, Computer Science for Non-Majors (CSCI 1001), East Carolina University Fall 2013 – Spring 2014
- **Auxiliary Instructor, graduate course: Advance Data Structure**, (taught by Dr.Junhua Ding) Fall 2014
- **Auxiliary Instructor, graduate course: Software Project Managements**, (taught by Dr.Tabrizi) Fall 2014
- **Auxiliary Instructor, graduate course: Software Requirement Engineering**, (taught by Dr.Tabrizi) Fall 2014
- **Teacher Assistant**, Introduction to Algorithms and Data Structures (CSCI 3300), East Carolina University, spring 2013.
- Teacher Assistant, Advance Programming, Sharif University of Technology, fall 1998, spring 1999, fall 1999, and spring 2000.
- Instructor, Mathematical Lab Software (Matlab, Mathematica), Sharif University of Technology, fall 1998, fall 1999 and fall 2000.

Skills

- Machine Learning, Deep Learning (programming, analysis, theano , keras ,...)
- Meta-Recognition
- Neuroscience and neural circuit (Medical imaging, XRM, SBEM, SCORE,2photon)
- MATLAB, OpenCV, Python especially in computer vision and machine learning area
- **Programming Languages:** Expert in.NET technologies, specifically in C# programming, API programming, C++, C#, PHP, Java, Python,
- **Databases:** MySQL, MS SQL, NoSQL
- **Web Development:**NET, PHP, JavaScript, HTML, CSS and Dart

Professional Experience

Karen Chista Data Processing Tehran, Iran

Jan 2007 Aug 2012

- Director and co-founder
- Project Manager

Projects:

perse int'l forwarding co

Mar 2010 Mar 2011

(The largest non-governmental Cargo and Forwarding Company in Iran)

- First Coastal Cargo Manager Software based on RFID on Broadband Network in Iran.
- Cargo system manager project
- Cargo and Domestic Branch Data Sync Manager

Karapost Int'l Courier and Cargo Tehran, Iran

Jan 2005 – Jan 2007

(The largest non-governmental Post Company in Iran)

Apr 2007 Aug 2012

- Karen Postal Solution (First nexus set of postal, courier and cargo software in IRAN, including, post process, ERP, tracking system)

Ex-IBM Lab (DPI co)

2004 - 2007

(The largest Software Company in Iran)

Consultant and Project Manager on the following projects

Projects:

DPI Internal Software Integration – analytical tools, ERP