Mostafa S. Ibrahim

Personal Data

Birth	Cairo, Egypt	1987
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Links	Website	Linkedin	Github	Google Scholar	Quora	Ask

Interests

I have a mix of experience in Software Engineering, 2D Computer Vision Research and Algorithms Design. I am interested in applying **Computer Vision and Machine Learning** to solve real-world problems. I am open to both **Research and Engineering** opportunities.

Skills

Programming Languages	C++, Java (SE,EE), Python, Matlab.
Computer Vision Research	Deep Learning, Action Recognition, Human Activities, Object Detection, Semantic Segmentation, Object Tracking
Frameworks	Caffe, Lasnge (Theano based), TensorFlow, LibSVM, OpenCV
Software Engineering	Payment(Java EE), Storage Management (C++), Computer Vision (C++)
Competitive Programming	ICPC World Finalist 2011, Problem Setter, Judge, Chief Judge, Coach

Education

2015-Present — Ph.D. in Computer Science, **Simon Fraser University**, Canada
Supervisor Prof Greg Mori - **Computer Vision** Field
Working in Multi-person Activity Recognition
GPA: 3.92/4 - Graduating (soon) Date: Dec 2018 | My Page

2010-2012 — M.Sc. in Computer Science, **Cairo University**, Egypt
Supervisor: Prof Amr Badr, **Computer Vision** Field
Worked in Image Object Detection: Object Proposals Approach | Paper

2004-2008 — Hon. B.Sc. in Computer Science, **Cairo University**, Egypt
GPA: 3.83/4 (3rd on class)
Graduation Project: Programming Online Judge, *Using Java, JSF Framework*
Internship: IBM Egypt, Summer 2007 in Employees Evaluation System

Work Experience

Mar 2018-Aug 2018	**Machine Learning Research Intern at D-Wave, Canada** Weakly Supervised Image Segmentation Project Research Project toward CVPR 2019 Keywords: Tensorflow, PASCAL VOC, COCO Supervisor Arash Vahdat
May 2016-Aug 2016	**Java Software Engineer Intern at Google, USA** Worked in the **photos team**: investigating a feature for the photos app Designed, developed and tested the feature internally My Evaluation was very positive: **very productive and needed minimal supervision** Google offered another internship without interviewing process
Aug 2014-Apr 2016	**C++ Senior Vision Engineer at Heruolabs, Germany** Worked remotely: full time for 5 months, then 40% part time during PhD Developed **vision modules** in detection, object proposals and tracking Developed tools to facilitate models training Developed a gateway to receive vision queries and process them Research investigations in some private ideas
Jul 2011-Jul 2014	**C++ Software Engineer at NTP, Egypt** Worked in a **data storage management** software named NTP QFS Team was maintaining Disk Quota Policies to limit user consumption Customizing the policies to meet the specific needs of your individual users Managing file data use across: the enterprise, multiple platforms, storage types
Jun 2010-Mar 2011	**Research Assistant at Microsoft, Egypt** Computer Vision Field - Semantic Image Segmentation problem Contribution: Potential values in a discrete energy minimization setup Supervisor: Prof Dr Motaz El Saban. Programming Languages: C++, Matlab
Nov 2008-May 2010	**Java Software Engineer at FAWRY, Egypt** Team was building a bill presentment and payment network to handle the bills through the various electronic channels available at **banks**; including ATMs, the internet, mobile phones and point of sales. Technology: Java EE(JSF web, JPA, Web services, JMS)

Research Publications

- **Mostafa S. Ibrahim**, Arash Vahdat. Weakly Supervised Image Segmentation, *In Progress, Toward CVPR 2019*

- **Mostafa S. Ibrahim**, Greg Mori. Hierarchical Relational Networks for Group Activity Recognition and Retrieval, *under review* ECCV 2018. Github

- Jiawei He, **Mostafa S. Ibrahim**, Zhiwei Deng, Greg Mori. Generic Tubelet Proposals for Action Localization, in WACV 2018

- Mehran Khodabandeh, Zhiwei Deng, **Mostafa S. Ibrahim**, Shinichi Satoh, Greg Mori. Active Learning for Structured Prediction from Partially Labeled Data, in arXiv preprint arXiv:1706.02342, 2017

- **Mostafa S. Ibrahim**, Srikanth Muralidharan, Zhiwei Deng, Arash Vahdat, Greg Mori. A Hierarchical Deep Temporal Model for Group Activity Recognition, in CVPR 2016. Github

- **Mostafa S. Ibrahim**, Amr A. Badr, Mostafa R. Abdallah and Ibrahim F. Eissa. Bounding Box Object Localization Based On Image Superpixelization, in Procedia CS 2012
- **Mostafa S. Ibrahim** and Motaz A. El Saban. Higher order potentials with superpixel neighbourhood (hsn) for semantic image segmentation, in ICIP 2011

PROGRAMMING CONTESTS ACTIVITY

- Part of SFU ACM ICPC Administration team/WPC in 2017 & 2018.
- Coaching students since 2014 (30+ trainees in 2017 and 2018).
- Judge & Problem Setter in Arabian Regional ACM ICPC 2013.
- Chief Judge in Egyptian & Jordanian National ACM ICPC in 2012.
- 2011 ACM ICPC World Finalist in Orlando, Florida - USA.
- 2nd rank 2009 and 2nd rank 2010 in Arab Collegiate Programming Contest.
- 2nd rank 2006, 5th rank 2008 and 1st rank 2009 in Egyptian National ACM ICPC.
- 8th rank in 2005 Egypt Olympiad in Informatics (EOI), Silver Medal.
- Have a YouTube Channel (250+ videos - 22k subscribers) - Training sheet.

OTHERS

- Teaching Assistant (2008-2014), Cairo University. Courses: Programming, Software Engineering, Data Structures and Algorithms, Neural Network, Genetic Programming.
- Conducted Computer Vision Study Group in SFU in 2016.
- Organized Arabic Computer Vision Webinar Series.
- Conducted Computer Vision Study Group in Cairo University in 2012-2013.
- Co-organized Machine Learning Day in Cairo University in 2011.
- Much fun: Gym, Football, Organizing BBQs, Helping students (Answered 17K questions on ask.fm).