Mostafa S. Ibrahim

PERSONAL DATA

BIRTH Cairo, Egypt | 1987

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INTERESTS

I have a mix of experience in Software Engineering, 2D Computer Vision Research and Algorithms Design. My interests are to apply **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-Dec 2018 | Ph.D. in Computer Science, Simon Fraser University, Canada

 ${\tt SUPERVISOR\ Prof\ Greg\ Mori\ -\ Computer\ Vision\ Field}$

Working in Multi-person Activity Recognition GPA: 3.92/4 - Graduating (soon) Date: Dec 2018

My Page

Paper

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

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

TEAM LEAD Jingyu Cui

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, in 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).