

Shugao Ma

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EDUCATIONAL BACKGROUND

Sep. 2010 - Now	Boston University	Doctorate Student in Computer Sciences
Sep. 2006 - July 2009	Chinese Academy of Sciences	Master in Computer Applied Technology
Sep. 2002 - July 2006	Fudan University	Bachelor in Software Engineering
Sep. 2003 - July 2006	University College Dublin	Bachelor in Computer Sciences

RESEARCH EXPERIENCES

- **Sep. 2010 - Now Doctorate Study in Image and Video Computing Group of BU**
Supervisor: Professor Stan Sclaroff (Boston University)
Collaborator: Professor Nazli Ikizler-Cinbis (Hacettepe University in Turkey)
Interests: interested in many computer vision research topics; recently working on action recognition and localization, multiple instance learning, visual attribute learning, and part based models for action recognition.
- **Sep. 2009 – April 2010 Online-Video Advertising**
Supervisor: Professor Qi Tian (University of Texas at San Antonio)
Contribution: a framework for intelligent content based advertisement insertion to online videos.
- **Sep. 2006 – July 2009 Master thesis: “Research on Image Scene Matching and Video Motion Analysis Based on Local Invariant Image Features”**
Supervisor: Professor Weiqiang Wang (Chinese Academy of Sciences)
Main contributions: an algorithm for image scene matching for consumer photos; an algorithm for camera motion analysis in movie videos; an algorithm for fighting shot detection in action movies.
- **Nov. 2005 – June 2006 Content Based Audio Searching**
Supervisor: Professor Guenole C.M. Silvestre (University College Dublin)
Contribution: audio fingerprint indexing for content based audio searching.

INTERNSHIP EXPERIENCES

- **May 2013 – Aug. 2013 Google (in Mountain View, CA, USA)**
Contribution: designed and implemented a system for predicting users’ video advertising intension on YouTube. Techniques involved in this project include big data processing and large scale machine learning. This system has been launched by Google.
- **May 2007 – Aug. 2007 Microsoft Advanced Technology Center (in Beijing, China)**
Contribution: designed and implemented automatic a video quality assessment software. This work targeted at scoring videos (including audios) based on their perception qualities, which will help generate smart thumbnail previews in video search results.
- **April 2006 – July 2006 SAP Labs China (in Shanghai, China)**
Contribution: designed and implemented a prototype of Assumption based Truth Maintenance System. This work targeted at producing optimal solutions to automatically solve configuration conflicts within user defined rules in SAP’s products.

WORK EXPERIENCES

➤ **2009.7 - 2009.8 Baidu (www.baidu.com) Image Search (in Beijing, China)**

Job Title: Software Researcher and Developer

Contribution: developed a data transfer and management module for image search servers. This module is capable to process and manage huge data communications between all Baidu's image search servers and processes. Baidu is the biggest web search engine in China.

PUBLICATIONS

Shugao Ma, Jianming Zhang, Nazli Ikizler-Cinbis and Stan Sclaroff . "*Action Recognition and Localization by Hierarchical Space-Time Segments*". In IEEE International Conference on Computer Vision (ICCV), 2013.

Shugao Ma, Nazli Ikizler-Cinbis and Stan Sclaroff, "*Unsupervised learning of discriminative relative visual attributes* ", In 2nd International Workshop on Parts and Attributes, held in conjunction with European Conference on Computer Vision (ECCV), 2012.

Shugao Ma, Weiqiang Wang, "*Effective Fighting Shot Discrimination in Action Movie* ", Journal of Computer Science and Technology (JCST), Vol.26, No.1, pp.187-19, 2011.

Shugao Ma, Weiqiang Wang, "*Effective Camera Motion Analysis Approach* ", in IEEE International Conference on Networking, Sensing and Control (ICNSC), 2010.

Shugao Ma, Weiqiang Wang, Shuqiang Jiang, Qingming Huang, Wen Gao, "*Effective Scene Matching with Local Feature Representatives*", In International Conference on Pattern Recognition (ICPR), 2008.

TECHNICAL SKILLS

- Good and Experienced at programming and software design, having used many programming languages but most frequently C/C++, Java, C# and Matlab
- Familiar with many computer vision algorithms and tools, many machine learning algorithms and tools and many numerical optimization algorithms and tools

CAMPUS ACTIVITIES

- Teaching fellow for course Combinatoric Structures in Boston University from Sep. 2010 to Dec. 2010.
- Teaching assistant for course Advanced Technologies in Human/Computer Interface from March 2009 to July 2009 in Graduate University of the Chinese Academy of Science (GUCAS)
- Teaching assistant for course Introduction to Data Mining from Sep. 2008 to Jan. 2009 in GUCAS
- Associate Director in the Information Center of the Youth League in Fudan University in 2005
- Associate Team Leader for the Software School's Youth Volunteers in Fudan University from 2003 to 2004

SCHOLARSHIPS & HONORS

- Research Assistant Scholarships from Boston University in 2011 and 2012.
- Research Assistant Scholarships from GUCAS in 2007, 2008 and 2009.
- People's Scholarship of Fudan University in 2003, 2005 and 2006
- New Student Scholarship from NEC and China Mobile in 2002

SELF-EVALUATION

Having solid practical skills in computer science and software engineering; passionate in studying and innovating new techniques especially computer vision, machine learning and numerical optimization; experienced in teamwork and having a strong sense of responsibility; sociable and hard-working.