

Hadi Kiapour

CONTACT INFORMATION	199 Fremont St, CB 1.6.116 San Francisco, CA 94105 (919) 945 - 4045 hadi@cs.unc.edu	www.hadikiapour.com Google Scholar LinkedIn
RESEARCH INTERESTS	My research lies at the intersection of Computer Vision, Natural Language Processing and Machine Learning. I have a passion for analyzing massive amounts of images with associated text to develop algorithms that can turn computers to fashion experts. I am especially interested in building efficient models for clothing detection, semantic parsing, street to shop clothing retrieval and fashion style recognition.	
EDUCATION	University of North Carolina at Chapel Hill Doctor of Philosophy in Computer Science Dissertation: Large Scale Visual Recognition of Clothing, People and Styles Advisor: Tamara L. Berg	Dec. 2015
	Sharif University of Technology B.Sc. in Electrical Engineering, Control Systems	Jun. 2011
PUBLICATIONS	<p>Every Brand is a Story: Going beyond Logos in Fashion Brands by Visual Understanding. Hadi Kiapour, Robinson Piramuthu (Under review) Coming soon on arXiv, 2018.</p> <p>Conditional Image-Text Embedding Networks. Bryan A. Plummer, Hadi Kiapour, Shuai Zheng, Robinson Piramuthu, Svetlana Lazebnik (Under review) arXiv 2018.</p> <p>Twenty Questions Game: Finding Images using Human-in-the-loop Feedback. Bryan A. Plummer, Hadi Kiapour, Shuai Zheng, Robinson Piramuthu (Under review) Coming soon on arXiv, 2018.</p> <p>Visual Search at eBay. Fan Yang, Ajinkya Kale, Yury Bubnov, Leon Stein, Qiaosong Wang, Hadi Kiapour, Robinson Piramuthu ACM SIGKDD Conference on Knowledge Discovery and Data Mining. KDD 2017. Halifax, Nova Scotia, Canada.</p> <p>Where to Buy It: Matching Street Clothing Photos to Online Shops. Hadi Kiapour, Xufeng Han, Svetlana Lazebnik, Alexander C. Berg, Tamara L. Berg IEEE International Conference on Computer Vision. ICCV 2015. Santiago, Chile. (Oral Presentation)</p> <p>Mine the Fine: Fine-Grained Fragment Discovery. Hadi Kiapour, Wei Di, Vignesh Jagadeesh, Robinson Piramuthu IEEE International Conference on Image Processing. ICIP 2015. Québec city, Canada.</p> <p>Hipster Wars: Discovering Elements of Fashion Styles. Hadi Kiapour, Kota Yamaguchi, Alexander C. Berg, Tamara L. Berg</p>	

European Conference on Computer Vision. ECCV 2014.
Zurich, Switzerland.

Materials Discovery: Fine-Grained Classification.
Hadi Kiapour, Kevin Yager, Alexander C. Berg, Tamara L. Berg
IEEE Winter Conference on Applications of Computer Vision. WACV 2014.
Steamboat Springs, CO.

Retrieving Similar Styles to Parse Clothing.
Kota Yamaguchi, Hadi Kiapour, Luis E. Ortiz, Tamara L. Berg
IEEE Transactions on Pattern Analysis and Machine Intelligence. TPAMI 2014.
(Journal Paper)

Paper Doll Parsing: Retrieving Similar Styles to Parse Clothing Items.
Kota Yamaguchi, Hadi Kiapour, Tamara L. Berg
IEEE International Conference on Computer Vision. ICCV 2013.
Sydney, Australia.

Parsing Clothing in Fashion Photographs.
Kota Yamaguchi, Hadi Kiapour, Luis E. Ortiz, Tamara L. Berg
International Conference on Computer Vision and Pattern Recognition. CVPR 2012.
Providence, RI.

Analysis, Interpretation, and Recognition of Facial Action Units and Expressions Using Neuro-Fuzzy Modeling. M. Khademi, Hadi Kiapour, M. Manzuri, A. Kiaei
Artificial Neural Networks in Pattern Recognition. ANNPR 2010.

Recognizing Combinations of Facial Action Units with Different Intensity Using a Mixture of Hidden Markov Models and Neural Networks.
M. Khademi, M. Manzuri, Hadi Kiapour, A. Kiaei
Multiple Classifier Systems MCS 2010.

RESEARCH
EXPERIENCE

eBay, San Francisco, California. 2016 - Present
Research Scientist in the Computer Vision Group
- Key contributor of visual search in eBay ShopBot and Close5.
- Leading research on fashion recognition, fine-grained classification and multimodal search.
- Computer vision lead for inline shopping experience at New Product Development.
- Deployment and maintenance of services on Google Cloud.
- Mentorship of internship projects on attribute recognition using semi-supervised data, multimodal search and active image search with reinforcement learning and generative adversarial networks.

The University of North Carolina at Chapel Hill, North Carolina. 2013 - 2015
Research Assistant at the Computer Science Department
Performed research in visual recognition of fashion styles and street to shop clothing retrieval in large scale image datasets collected from web in the research group of Prof. Tamara L. Berg, and worked closely with Prof. Alexander C. Berg and Prof. Svetlana Lazebnik.

Stony Brook University (SUNY), Stony Brook, New York. 2011 - 2013
Research Assistant at the Vision and Digital Media Lab
Performed research in large scale semantic parsing of clothing in fashion street images. I was part of the research group of Prof. Tamara L. Berg and worked closely with Prof. Kota

Yamaguchi and Prof. Luis E. Ortiz.

eBay, San Jose, California. Summer 2015
Research Intern
Worked on semantic embeddings that jointly model images and text data with skip-grams. My mentor was Robinson Piramuthu.

eBay, San Jose, California. Summer 2014
Research Intern at eBay Research Labs
Worked on fine-grained object classification using mid-level representation learning. My mentors were Wei Di, Robinson Piramuthu and Vignesh Jagadeesh.

Royal Institute of Technology (KTH), Stockholm, Sweden. Spring & Summer 2010
Visiting Researcher at Computer Vision and Active Perception Laboratory
Worked on spatial modeling from 2D indoor scene images. I was advised by Prof. Stefan Carlsson and Prof. Jan-Olof Eklundh.

Institute for Research in Fundamental Sciences (IPM), Tehran, Iran. 2008 - 2011
Visiting Researcher at Computer Vision and Active Perception Laboratory
Performed research on object detection. I was part of the computer vision research group lead by Prof. Mehrdad Shahshahani and worked with Prof. Ali Farhadi.

Sharif University of Technology, Tehran, Iran. 2008 - 2011
Research Student at the Digital Signal Processing Laboratory
Performed research on facial action recognition using hidden markov models and neural networks. I was part of the research group lead by M. T. Manzuri.

PATENTS

Fine-Grained Categorization Issued. US Patent No. 9818048.	Nov. 2017
Crowd Assisted Query System File Number IP-P3272WO1.	Nov. 2017
Personal Assistant with Visual Multi-turn Dialog File Number IP-P3304WO1.	Oct. 2017
Personal Assistant with Offline Visual Search Database File Number IP-P3303WO1.	Oct. 2017
Parallel Prediction of Multiple Image Aspects File Number IP-P3302WO1.	Oct. 2017
Image Analysis and Prediction Based Visual Search File Number IP-P3299WO1.	Oct. 2017
Camera Platform and Object Inventory Control File Number IP-P3342PRV.	Sep. 2017
Determining an Item that has Confirmed Characteristics File Number IP-P3265WO1.	Aug. 2017
Visual Aspect Localization Presentation File Number IP-P3309US1.	Mar. 2017
Anchored Search File Number IP-P3311PRV.	Dec. 2016

Crowd Assisted Query System File Number IP-P3272US1.	Nov. 2016
Projecting Visual Aspects into a Vector Space File Number IP-P3282US1.	Nov. 2016
Intelligent Online Personal Assistant with Multi-turn Dialog based on Visual Search File Number IP-P3304US1.	Oct. 2016
Intelligent Online Personal Assistant with Offline Visual Search Database File Number IP-P3303US1.	Oct. 2016
Parallel Prediction of Multiple Image Aspects File Number IP-P3302US1.	Oct. 2016
Image Analysis and Prediction Based Visual Search File Number IP-P3299US1.	Oct. 2016
Determining an Item that has confirmed characteristics File Number IP-P3265US1.	Sep. 2016
Fine-Grained Categorization File Number IP-P2984WO1.	Jan. 2016
Fine-Grained Categorization File Number IP-P2984KR1.	Jan. 2016
Fine-Grained Categorization File Number IP-P2984CN1.	Jan. 2016

MEDIA
COVERAGE AND
PRESS
RELEASE

How Ebay uses employee pet projects to launch into new initiatives like AR and VR. Business Journals, Sep. 18, 2017.
<https://www.bizjournals.com/sanjose/news/2017/09/18/ebay-employee-projects-expo-ar-vr-initiatives.html>

This eBay ShopBot knows what you like and feeds you trendy suggestions. VentureBeat, Jul. 12, 2017.
<https://venturebeat.com/2017/07/12/this-ebay-shopbot-knows-what-you-like-and-feeds-you-trendy-suggestions/>

eBay ShopBot in Pictureland. Medium, Dec. 6, 2016.
<https://medium.com/@robinsonpiramuthu/ebay-shopbot-in-pictureland-3d577a40b5c8>

eBay teams up with Facebook Messenger to launch shopping bot. Engadget, Oct. 19, 2016.
<https://www.engadget.com/2016/10/19/ebay-shopbot-facebook-messenger-bot/>

The new ShopBot bot on Messenger searches eBay for you. TechCrunch, Oct. 18, 2016.
<https://techcrunch.com/2016/10/18/the-new-shopbot-bot-on-messenger-searches-ebay-for-you/>

Ebay's New Shopbot On Facebook Messenger Aids Contextual Search. Forbes, Oct. 18, 2016.
<https://www.forbes.com/sites/rachelarthur/2016/10/18/ebays-new-shopbot-on-facebook-messenger-aids-contextual-search>

TEACHING
EXPERIENCE

<i>Teaching Assistant</i>	
CSE 373: Analysis of Algorithms. Stony Brook University	Spring 2013
CSE 214: CS II, Data Structures Using Java. Stony Brook University	Spring 2012
CSE 102: Intro. to Web Design and Programming. Stony Brook University	Spring 2012
CSE 220: Systems-Level Programming. Stony Brook University	Fall 2011
CSE 308: Software Engineering. Stony Brook University	Fall 2011
Principles of Electrical Engineering. Sharif University of Technology	Fall 2008

PROFESSIONAL ACTIVIES	<i>Journal Reviewer</i>		
	IEEE Transactions on Multimedia	2018	
	IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)	2017	
	IEEE Transactions on Multimedia	2017	
	ACM Transactions on Multimedia Computing Communications and Applications	2017	
	IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)	2016	
	IEEE Transactions on Multimedia	2015	
	IEEE Transactions on Multimedia	2014	
	<i>Program Committee or Reviewer for Conferences</i>		
	European Conference on Computer Vision (ECCV)	2018	
	IEEE Conference on Computer Vision and Pattern Recognition (CVPR)	2018	
	International Conference on Computer Vision - Computer Vision for Fashion Workspop	2017	
	IEEE Conference on Computer Vision and Pattern Recognition (CVPR)	2017	
	International Conference on Computer Vision (ICCV)	2017	
	ACM SIGGRAPH (Computer GRAPHics and Interactive Techniques)	2016	
	IEEE Conference on Computer Vision and Pattern Recognition (CVPR)	2016	
	European Conference on Computer Vision (ECCV)	2016	
	IEEE Student Member		
	AWARDS AND HONORS	Critical Talent Award. This prestigious award is given to the top 1% of performers company-wide.	2018
		Honorable Mention Award at eBay's International Innovation Expo	2017
Best poster award, Graduate Research Conference, Stony Brook University		2012	
Computer science fellowship, Stony Brook University, NY, USA		2011 - 2012	
Full research scholarship, Royal Institute of Technology (KTH), Stockholm, Sweden		2010	
Ranked 74 th out of over 400,000 participants in Iran's university entrance exam		2006	
Qualified for the 2 nd round of national olympiad of mathematics		2004	
Qualified for the 2 nd round of national olympiad of informatics		2004	
Admitted to national exceptional talents (NODET), top 1% nationally, Iran		2003	
INTERNS AND ADVISEES	Bryan A. Plummer, <i>PhD, eBay Intern.</i>	2017	
	Omid Pourseed, <i>PhD, eBay Intern.</i>	2017	
	Licheng Yu, <i>PhD, eBay Intern.</i>	2017	
	Sebo Kim, <i>Undergrad.</i>	2013	
	Kimia Tajik, <i>Undergrad.</i>	2011	
	Neda Sabbaghpour, <i>Undergrad.</i>	2010	
OTHER ACTIVITIES	Director of Science, Resana	2009 - 2010	
	Resana Science is the name collectively given to collaborative research by the student community of the Department of Electrical Engineering, Sharif University of Technology.		
SELECTED SKILLS	<i>Languages:</i> English (full proficiency), Persian (native), Spanish (beginner) <i>Programming Languages:</i> Python, C/C++, MATLAB, JavaScript, HTML, CSS <i>Operating Systems:</i> Linux, macOS, Windows <i>Tools:</i> Caffe, Tensorflow, Keras, OpenCV, Vim, Docker, Google Cloud, Scikit-learn, Pandas, Libsvm, Liblinear, VLFeat		