

---

# Sarah S. Aboutalib

Pittsburgh, PA 15213  
(412) 945-0772

Email: [sarah.aboutalib@gmail.com](mailto:sarah.aboutalib@gmail.com)  
Website: <http://www.sarahaboutalib.com>

---

## RESEARCH INTERESTS

I have experience and interest in Human-Computer Interaction, User Design, Artificial Intelligence and Cognitive Science. I am interested in biomedical informatics research for the underserved, personalized medicine, and reducing medical errors.

## EDUCATION

### **Ph.D. in Computer Science**

Carnegie Mellon University (May 2011)

### **B.S. in Cognitive Science (Specialization in Computation) w/ Honors**

Overall GPA: 3.7

Minor in Computer Science and Engineering

University of California, San Diego (June 2005)

## SKILLS

Languages: Java, C/C++, Matlab, Visual Basic, LaTeX, HTML, PHP, XML, SQL, CSS, CSH, JavaScript and Bash Script, easily learns new languages. Content Management Systems (Programming for Drupal & Wordpress). Applications: Photoshop, Flash, Access. Other languages and applications also, feel free to contact with additional questions. Some Arabic Comprehension.

## EXPERIENCE

### **User Experience Consulting**

(May 2012 – Present)

#### Current Projects

Create user-friendly modern designs that are intuitive to update and navigate, current projects include:

Architectural Design Company – Orchard Lane

Non-Profit Organization – Alfaoz

Physical Therapy Office – Pure Medical Services

#### Pediatric Dentistry Group – University of Florida

(August 2013 – January 2014)

#### University of Pittsburgh, Global Studies Department, CERIS

(May 2012 – April 2013)

Manager: Elaine Linn

Interview users and create a content management system using Drupal to improve experience of updating and interaction.

### **Database Consulting, Pure Medical Services**

(May 2011 – June 2013)

Manager: Armen Badalyan

Design and implemented a Database system, including front and backend for a medical office.

### **Research Assistant, Carnegie Mellon University**

(September 2005 – May 2011)

Advisor: Manuela Veloso

Investigating an approach to integrating multiple cues of diverse types (visual, activity, speech, etc.) for more robust object recognition using video data and probabilistic relational learning techniques.

### **Internship, Lockheed Martin**

(June 2009 – August 2009), participating in discussions till present

Manager: Mark Gersh

Supervisor: Andy Zimdars, Dave Tyler

Two projects: (1) Developed vision and assessed feasibility of visual navigation, feature recognition and obstacle avoidance with the robots' limited on-board processors for DARPA LANdroids project (2) Image registration and its Cramer-Rao lower bound for spectral images.

### **Honors Project & Independent Research, UC San Diego**

(September 2004 – June 2005)

Developed a computer model of the use of saccades in object recognition.

Also, assisted in computer vision project using shared-features.

## **HONORS/AWARDS**

**Women @ IT fellowship** (September 2005 – June 2006)

**Cognitive Science Honors** (June 2005)

**Gates Millennium Scholarship** (June 2001-2005)

## **PUBLICATIONS**

Aboutalib, S. and Veloso, M. **Multiple-Cue Object Recognition on Outside Datasets.** *IEEE/RSJ Intl Conference on Intelligent Robots and Systems (IROS)*, 2010.

Aboutalib, S. and Veloso, M. **Cue-based equivalence classes and incremental discrimination for object recognition.** *IROS*, 2009.

Aboutalib, S. and Veloso, M. **Simulation and Weights of Multiple Cues for Robust Object Recognition.** *IROS*, 2007.

Aboutalib, S. and Veloso, M. **Towards Using Multiple Cues for Robust Object Recognition.** In *Proceedings of AAMAS'07*, 2007.

Murphy-Chutorian, E., Aboutalib, S., Triesch, J. **Analysis of a Biologically-Inspired System for Real-time Object Recognition** *Cognitive Science Online*, 3.2:1-14, 2005.

\* *Thesis document also available, upon request.*