

Kevin Jonathan Shih

1007 W. Main st. Apt 209
Urbana, IL 61801
(734) 709-1407 kjshih2@illinois.edu

- EDUCATION**
- PhD Candidate*, University of Illinois, Urbana-Champaign (Fall 2011-present)
- Department: Computer Science
 - Area of focus: Computer Vision, Machine Learning
 - Advisor: Derek Hoiem
- BSE*, University of Michigan, Ann Arbor (Fall 2008-Spring 2011)
- Department: Computer Science
 - GPA: 3.936/4.0 (Summa Cum Laude)
- SELECTED PUBLICATIONS**
- **KJ Shih**, S Singh, D Hoiem. *Where To Look: Focus Regions for Visual Question Answering*. In CVPR 2016 (Spotlight)
 - **KJ Shih**, A Mallya, S Singh, D Hoiem. *Part Localization using Multi-Proposal Consensus for Fine-Grained Categorization*. In BMVC 2015
 - **KJ Shih**, I Endres, D Hoiem. *Learning Discriminative Collections of Part Detectors for Object Recognition*. In PAMI 2014.
 - I Endres, **KJ Shih**, J Jiaa, D Hoiem. *Learning Collections of Part Models for Object Recognition*. In CVPR 2013.
 - MJ Kochenderfer, **KJ Shih**, JP Chryssanthacopoulos, CE Rose, TR Elder. *Position Validation Strategies Using Partially Observable Markov Decision Processes*. In DASC 2011.
- EXPERIENCE**
- Research Assistant* Fall 2011-present
University of Illinois
- Applied machine learning and pattern recognition techniques to improve state-of-the-art object detection capabilities
 - Explored applications of deep learning methods in joint vision-language tasks
 - Maintained shared linux-based GPU servers for research group
- Teaching Assistant for CS543 Computer Vision* Spring 2015
University of Illinois
- Taught lecture on clustering techniques
 - Held weekly office hours and helped grade assignments
- Research Intern* Summer 2014
eBay Research Labs
- Developed system to look up book cover catalogue images using mobile images of books
 - Developed pipeline for extracting blocks of text from images normally impossible to parse with off-the-shelf OCR software
 - Created and annotated a dataset of over 100K book cover images with title and author metadata
- Research Intern* Summer 2011
MIT Lincoln Laboratory
- Worked with staff in air-traffic control division to develop a safer interrogation system for aircrafts

- Applied Partially Observable Markov Decision Processes to create a system that learned an intelligent behavior pattern for position interrogation
- Wrote MATLAB and C++ code to generate and test results
- Published work to 30th Digital Avionics Systems Conference (Best Paper of Session Award)

Undergraduate Machine Learning Course Instructor's Aide Winter 2010
University of Michigan

- Held office hours to assist students in understanding basic concepts in machine learning
- Designed datasets for homework assignments
- Implemented and documented solutions for homework assignments

Engineering 101 Course Instructor's Aide Fall 2010
University of Michigan

- Held office hours to assist students in basic programming techniques
- Helped grade exams

Research Intern Summer 2010
MIT Lincoln Laboratory

- Worked with staff in the cyber-security division to develop for NMAP(Network Mission Assessment Tool)
- Implemented user interfaces in Java Swing
- Integrated machine learning and data mining techniques into the toolset

HONORS AND AWARDS

Computer Science and Engineering Scholars Award (Fall 2009-Winter 2010)
Graduated Summa Cum Laude from the University of Michigan
NSF Honorable Mention (2012)

ACADEMIC SERVICES

Reviewer for CVPR (2016), ECCV (2016)

COMPUTER SKILLS

Languages & Software: MATLAB, Java, C, C++, python, bash, Tensorflow, Mat-ConvNet, Caffe
Advanced Linux user in shell environments
Familiar with most forms of version control
Experience managing multiple linux servers for more than ten users

COURSES

- Linear Algebra
- Probabilistic Graphical Models
- Machine Learning
- Non-Linear Programming
- Algorithms
- Computer Vision

EXTRA-CURRICULAR

Taekwondo (certified 1st degree blackbelt)
HKN (Eta Kappa Nu honor society)

LANGUAGES

English (Native), Chinese (Secondary)