

AKRAM HELOU

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Github (incomplete): <https://github.com/ahelou2/>

Professional Interests

Artificial Intelligence, Machine Learning, Big Data, iOS Development. Web Development.

Education

2006 – 04/2010 **University of Michigan, Ann Arbor, College of Engineering**

B.S.E in Computer Science and Engineering, GPA: 3.742/4.000, Major GPA: 3.91/4.0

2010 – 05/2011 **Cornell University, Department of Computer Science**

PhD student in Computer Science

Relevant Coursework

Intro to AI, Machine Learning, Biomedical Machine Learning, Analysis I, Advanced Linear Algebra, Probability Theory, Algorithms, Robot Learning, and Computer Vision.

Experience

2012-09/2012 **App Academy, Web and iOS Development**

Student

- Learned Ruby on Rails and build simple Rails applications.
- Learned Objective-C and iOS development. Built moderately complicated applications.

2011-04/2012 **Stanford University, Unsupervised Feature Learning and Deep Learning Laboratory**

Research Assistant

Advisor: Professor Andrew Ng and Adam Coates

- Unsupervised feature learning of invariant features
- Unsupervised face recognition

2011-05/2011 **Cornell University, CS 6758 Robot Learning**

Teaching Assistant

Instructor: Professor Ashutosh Saxena

2010-12/2010 **Cornell University, Robot Learning Laboratory**

Research Assistant

Advisor: Professor Ashutosh Saxena

- Inferring kinematics models for everyday objects
- Robotic manipulation

2009-08/2009 **University of Michigan, Artificial Intelligence Laboratory**

Undergraduate Research Assistant

Advisors: Professors Satinder Singh Baveja and Richard Lewis

- Experimentally validated properties of theoretical framework for optimal rewards in Reinforcement Learning
- Studied Intrinsically Motivated Reinforcement Learning
- Investigating internal state control in Reinforcement Learning

2008-09/2008 **University of Michigan, Artificial Intelligence Laboratory**

Undergraduate Research Assistant

Advisor: Professor John Laird

- Modeled perspective taking in the Soar Cognitive Architecture
- Assisted with integrating Episodic Memory with Soar
- Implemented multi-valued attributes encoding and restoring functions

2007-09/2007 **Pfizer Global Research and Development**

Intern

Advisors: Dr. Julia Bandow and Dr. David Baker

- Designed and implemented Machine Learning algorithms to discover new biomarkers from gene expression values
- Advised and planned the incorporation of new text mining technology
- Tested the new Genedata 4.0 software for gene statistical analysis

2007-04/2007 **University of Michigan**

Project Lead

- Evaluated the University of Michigan's bus arrival prediction model
- Studied sources of error by processing and examining GPS data with Matlab
- Led a team of four freshmen engineers throughout the project

2006-04/2007 **Student Space System Fabrication Laboratory, University of Michigan**

Assistant Project Lead

Advisor: Professor Peter Washabaugh

- Designed a mini-satellite which reached 1 km of altitude and measures various parameters (pressure, altitude, velocity) and lands upright after descent
- Partially implemented flight control algorithms on Atmel chips
- Ranked 4th in National Competition sponsored by NASA

Awards, honors, and scholarships

0	NSF GRFP Honorable Mention
19	Finalist for the Henry Ford II prize
18-2009	Computer Science and Engineering Distinguished Achievement Award
19	Angell B. Scholar Award
17	Award for outstanding contribution to the Student Space Systems Fabrication Laboratory
16-2007-2008	University of Michigan, College of Engineering, Dean's Honor List
18-2009	Eli Lilly Distinguished Scholarship
17-2008	Groesbeck Clarence E. Memorial Scholarship
18-2009	CSE Scholars scholarship

Skills

Natural Languages: Fluent in English, French, and Arabic.

Computer Languages: C++, Matlab, C, Java, Ruby, and Objective-C.

Platforms: Windows, UNIX-based: GNU/Linux, Mac, and iOS.

Frameworks: Rails and iOS Foundation.

Applications: Xcode, Eclipse, Microsoft Office, Visual Studio, Genedata 4.0, GCC 4.1, QUOSA.

Other:

Citizen of the United States of America