

## EDUCATION

### UNIVERSITY OF CALIFORNIA, LOS ANGELES

PHD IN COMPUTER SCIENCE  
Expected Spring 2020

### UNIVERSITY OF CALIFORNIA, LOS ANGELES

MS IN COMPUTER SCIENCE  
Grad. May 2017  
Cum. GPA: 3.16

### UNIVERSITY OF DAYTON

BS IN COMPUTER  
ENGINEERING

Grad. May 2015  
Cum. GPA: 3.87  
Magna Cum Laude  
*Leadership in Flyer Innovations*  
Chief of Innovation  
Chief of Operations

## LINKS

Github:// [mjedmonds](#)  
LinkedIn:// [mjedmonds](#)

## COURSEWORK

### GRADUATE

Pattern Recognition and Machine Learning  
Learning and Reasoning with Bayesian Networks  
Statistical Modeling and Learning in Vision and Cognition  
Artificial Life  
*Teaching Assistant*  
Introduction to Computer Science

### UNDERGRADUATE

Artificial Intelligence  
Operating Systems  
Automata Theory  
UNIX/Linux Programming  
*Teaching Assistant*  
Electronic Devices Lab  
Engineering Innovations

## SKILLS

### PROGRAMMING

Over 5000 lines:  
C++11 • C • Python • Shell •  $\text{\LaTeX}$   
Over 1000 lines:  
Java • Matlab • CUDA  
Familiar:  
Assembly

## RESEARCH

### CENTER FOR VISION, COGNITION, LEARNING, AND AUTONOMY

GRADUATE RESEARCHER Los Angeles, CA | Sept 2015 – Present

Transferred visually latent causal changes from a human demonstrator to a robot using a tactile glove and an And-Or graph. The robot improves its online policy using demonstrations and reinforcement learning. Deployed robot localization on a ROS-based Baxter robot using SLAM, wheel odometry, and IMU data, combined using Kalman filtering.

### AIR FORCE RESEARCH LAB

UNDERGRADUATE RESEARCHER Dayton, OH | May 2014 – Sept 2015

Accelerated the declarative memory module of AFRL's CECEP cognitive architecture (based on ACT-R). The research focused on leveraging the parallelization of CUDA, yielding a 100x speedup over the fastest existing implementation. Utilized thread pools, parsers, IPC.

## EXPERIENCE

### SANTA MONICA COLLEGE

ADJUNCT PROFESSOR Santa Monica, CA | June 2016 - Present

- Teaching CS 80, Internet Programming, a class focused on HTML, CSS, JavaScript, MySQL, and PHP.

### GARMIN

SOFTWARE ENGINEERING INTERN Olathe, KS | May 2013 – Aug 2013

- Interned as a member of the Datalink team in the Aviation Department.
- Reduced verification testing time by 40%.

### CRISTO REY KANSAS CITY HIGH SCHOOL

TUTOR AND TEACHER Kansas City, MO | May 2011 – Aug 2012

- Pre-calculus and chemistry tutor and teacher at an inner city high school.

## PUBLICATIONS

**M. Edmonds\***, F. Gao\*, X. Xie, H. Liu, S. Qi, Y. Zhu, B. Rothrock, & S.C. Zhu  
*Learning Complex Functional Manipulations by Human Demonstration and Fluent Discovery*. IROS 2017.

H. Liu\*, X. Xie\*, M. Millar\*, **M. Edmonds**, F. Gao, Y. Zhu, V. Santos, B. Rothrock, & S.C. Zhu  
*A Glove-based System for Studying Hand-Object Manipulation via Pose and Force Sensing*. IROS 2017.

**M. Edmonds**, T. Atahary, S. Douglass, & T. Taha  
*Hardware Accelerated Declarative Memory Systems*. Submitted to TPDS 2017.

**M. Edmonds**, T. Atahary, T. Taha, & S. Douglass.  
*High Performance Declarative Memory Systems through MapReduce*. SNPD 2015.

D. Prince, **M. Edmonds**, A. Sutter, M. Cusumano, W. Lu, & V. Asari.  
*Brain Machine Interface using Emotiv EPOC to control Robai Cyton Robotic Arm*. NAECON 2015.

(\* Joint first authors)

## SOCIETIES AND AWARDS

2015	University	The Anthony Horvath and Elmer Steger Award of Excellence
2014	National	Eta Kappa Nu IEEE Honor Society
2014	National	Tau Beta Pi Engineering Honor Society
2011	Boy Scouts	Eagle Scout with over 200 hours of community service