

EDUCATION

UNIVERSITY OF CALIFORNIA, LOS ANGELES

PHD IN COMPUTER SCIENCE
Spring 2020

UNIVERSITY OF CALIFORNIA, LOS ANGELES

MS IN COMPUTER SCIENCE
Spring 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 • \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 the 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. Submitted to 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