
Education

University of Michigan, Ann Arbor, MI

2013 – 2017 (*Expected*)

- » Computer Science & Honors Applied Mathematics (Junior, **3.8 GPA**)
- » Highlights: Data Structures & Algorithms, Complex Analysis, Bayesian Nonparametrics

Coursera, coursera.org

2011 – 2013

- » Machine Learning, Probabilistic Graphical Models, Language Processing

Work Experience

Data Science / Software Intern, Are You a Human

May – Aug. 2015

- » Designed & implemented new *humanness* features, improving bot classification accuracy by 4%.
- » Prototyped new statistical models for user fingerprinting and tracking based on device capabilities.
- » Authored wiki pages for the current *humanness* model, setting high standards for internal documentation.

Research Assistant, Digital Humanities & German Periodicals

Sept. 2013 – April 2015

- » Supervised by Dr. Peter McIsaac & Dr. Sugih Jamin.
- » Analyzed and visualized 19th century German periodicals via **topic models**.
- » Programmed various topic & statistical models **from scratch** in Python:
 - Variational Latent Dirichlet Allocation
 - Hidden Markov Models for OCR Correction
 - Entropy-based German morpheme splitting

Independent Game Developer, archawn.newgrounds.com

2009 – 2013

- » Programmed several popular Flash games, monetizing through ads and sponsorships.
- » Collaborated internationally with other skilled developers, musicians, and artists.

Selected Projects

Incompressible Fluid Simulation

Winter 2014

- » Interactive Java simulation of viscous, incompressible fluid with periodic boundary conditions.
- » Solved numerically in the frequency domain, via the FFT.

Adambots Automated Scouting Kit

Winter 2013

- » Mathematical match analysis web app for FIRST Robotics Competitions.
- » Team power rankings and score predictions using custom linear algebra routines in JavaScript.

Technical Experience

	<i>Advanced</i>	<i>Proficient</i>	<i>Familiar</i>
Programming Languages	Python	HTML/CSS/JS, MATLAB, Java	C/C++
Machine Learning	gensim	numpy, matplotlib	scikit-learn
Miscellaneous		L ^A T _E X, Git	AWS, Node, flask

Involvement

Primary Organizer, Michigan Machine Learning Reading Group

June 2015 – Present

Officer, Michigan Student Artificial Intelligence Lab

Fall 2015

Teaching Assistant, MATH 425 (Intro. Probability)

Fall 2015

Math Grader, MATH 354 (Intro. Fourier Analysis), MATH 454 (PDEs)

Winter – Spring 2015

(Modified: August 2015)