

Education

University at Buffalo - M.S. Computer Science

December 2015

Machine Learning, Data Analytics, Statistical Inference, Bayesian Networks

Stony Brook University - B.S. Computer Science

May 2013

Experience*

UB Data Science and Machine Learning Research Group

Feb 2015 – Dec 2015

Researcher

<https://www.cse.buffalo.edu/ubds>

- Computed regression lines and a K-means clustering algorithm in order to analyze the similarities/differences of chronic kidney disease progression between 50,000+ patients.
- Contributed ideas for various ML techniques amongst other members in weekly meetings

Computer Science Engineering 219

Feb 2013 – May 2013

Teaching Assistant

- Aided 50+ undergraduate students weekly with understanding of code (including Java, C, and MIPS), homework, project, and topics (including data structures, algorithms, and Java Swing)
- Did 200+ hours of personal office hours, resulting in significantly improved student performance.

Projects

Pokémon Genetics Probability Calculator

September 2016 – present

Java, Java Swing

- Developed a specialized combinations algorithm, and a specialized probability algorithm to understand the probabilistic chance (based on user-specified input) of obtaining offspring Pokémon with sets of perfect IVs.

Learning & Inferencing with PGMs

May 2015

Matlab

- Given a record of 6000+ handwritten samples from students in grades 1 – 5, years 2011 - 2015
- Developed a Bayesian Network algorithm to help benefit forensic analysis of handwriting, and developed a Gibbs Sampling algorithm for evaluating mean and entropy inferences.

Face Recognition & Detection

May 2014

Matlab

- Using 15 different subjects (each with 11 images), implemented and compared misclassification rates between Eigenface & Fisherface dimension reduction algorithms, applying Nearest Neighbor method for classification results. On average Fisherface gave a lower misclassification rate of 0.2

Steve's 2D World

May 2012

C++, Lua, DirectX

- Created a 2D side-scrolling PC game. The player controls a single character and is tasked with reaching the end of the level; confronting AI bots and other obstacles along the way.

Hotel Management System

December 2011

Java, Java Swing

- Used Java and Swing to design and develop a management system application. Hierarchical users (managers, employees, and guests) are given varying degrees of interacting capabilities.

CIA Factbook Mapper

May 2011

Java, Java Swing

- Used Java and Swing to design and develop an application that renders world countries. Users are given functions for displaying various statistics including population, average budget, etc.

Skills

Java, C/C++, Matlab, HTML, CSS, JavaScript, JSP, XML, GIT

**To be fully transparent, I took a sabbatical from 2015-2017 to resolve issues of abuse in my family, but I am now ready to continue my career.*