Michael Remington

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Education

Bachelor of Science, Computer Science
Western Washington University, Bellingham, WA, expected June 2016

Projects

Course Projects:

- Created and implemented a neural network object in Java that supports classification, regression, and logistic modes.
- Wrote a Python program that recursively generates a tree of the state-space for a game of Nim and then wins against a human player.
- Wrote a Java program that clusters data points using the K-means and single-link agglomerative clustering methods.
- Developed a program in Java that builds phylogenetic trees using a clustering algorithm and pairwise distances between aligned amino acid sequences.
- Wrote a banking program in Java using concurrency methods that was able to process 10,000,000 transactions across 100 accounts significantly faster than a sequential program.
- Implemented a server and two distinct types of client for an online chat application using sockets in C.
- Created a program in Java using hash sets and linked lists that is able to automatically discover words from input text using bigram products.
- Developed a speech recognition program in Java which takes as its input a directed acyclic graph.
- Applied a series of buffer overflow attacks on an executable file after analyzing and probing the assembly code using the GDB debugger.

Experience

Undergraduate Researcher September 2015 - Present
Hutchinson Machine Learning Lab, Western Washington University, Bellingham, WA

- Designed and implemented deep and recurrent neural network models to predict sports data.

Research Lab Assistant July 2013 - September 2014
Rose Neuroscience Lab, Western Washington University, Bellingham, WA

- Wrote a program in Java to automate the task of coding microscope images to be evaluated without bias. This reduced image coding time from around forty minutes to near instantaneous.
- Prepared and microinjected plasmids into *C. elegans*.

Intern Summer 2012
Mobius Science Center, Spokane, WA

- Developed a system for recording and interpreting data visually and statistically from visitor surveys.
- Authored an eighty-page booklet detailing the scientific concepts behind each exhibit.
- Created and updated graphic design for public documents.

Programming Languages

Skilled With: Java, C, Python, Racket.
Experienced With: Ada, Assembly, Visual Basic, HTML, CSS.
Tools: Git, Subversion, GDB.

Publications

Conference:

Jacqueline Rose, Nicole Stankowicz, Amanda Leonti, Parker Stafford, Michael Remington, Katrina Mar, Samuel Moss, Andrew Records-Galbraith. *Examination of the Interplay between Acetylcholine and GABA signaling at the NMJ.* CeNeuro 2014.