Michael Remington

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Education

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

Experience

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

- Designed and implemented custom deep and recurrent neural network architectures to model sports data.
- Built a pipeline that reads both continuous and categorical features from an SQL database, scales continuous features, embeds categorical features, and feeds batched tensors of all features into a custom model function (e.g. LSTM, deep neural network).
- Parsed and organized large datasets into SQL databases.
- Wrote scripts that interface with SQL databases to analyze data.
- Collaborated closely with a team using a centralized repository.

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.

Projects

Research Projects:
Deep and Recurrent Neural Networks For Small Granularity Sports Modeling (In progress).

- Designed and implemented deep and recurrent neural network architectures to model sports data at the play-by-play level.

Independent Projects:
MarketMiner: Financial Prediction with Machine Learning (In progress).

- Financial modeling using neural networks.

Photography Portfolio Website

- Built a photo portfolio website using Bootstrap and Javascript.

Course Projects:

- Wrote a Python program that recursively generates a tree of the state-space for a game of Nim and beats a human player.
- 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.
- Built a file browser in C, providing a graphical user interface through GTK+3.0.
- Wrote a command line interpreter in C with piped commands, history, and I/O redirection.
- Implemented a server and two distinct types of client for an online chat application using sockets in C.

Skills

Programming Languages: Java, C, Python, SQL, HTML, CSS, Javascript, Ada, Racket, Assembly.
Tools: Git, Subversion, Bash, Unix, TensorFlow, Bootstrap.
Methodologies: Object-Oriented Programming

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.