Michael Remington

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Education

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

Experience

Independent Contractor - Machine Learning Development August 2016 - Present

- Constructed a convolutional neural network with additional data-processing, hyper-parameter search, and logging features for a client. The network achieved high accuracy when classifying still frames from a video feed.
- Technologies used: TensorFlow, TFLearn, Python, Pandas, Sklearn, Numpy, SVN.

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 data-processing pipeline that interfaces with a database and normalizes or embeds features appropriately.
- Created a custom model with convolutional, LSTM, and deep neural network layers.
- Parsed datasets into SQL databases.
- Visualized and presented statistical discoveries.
- Created a custom LSTM state initialization solution to better model individual teams.

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

- Wrote a program in Java to automate a common microscope imaging task. This reduced task time from around forty minutes to near instantaneous.

Intern Summer 2012
Mobius Science Center, Spokane, WA

- Set up 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.

Projects

Research Projects:
Deep and Recurrent Neural Networks For Small Granularity Sports Modeling

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

Independent Projects:
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.
- Implemented a server and two distinct types of client for an online chat application using sockets in C.

Skills

Programming Languages: Java, Python, C, SQL, HTML, Ada.

Distinctions

Outstanding Poster of the Undergraduate Scholars Showcase Poster Competition
Jake Moorhead, Josh Osborne, Michael Remington, Sam Kaplan and Brian Hutchinson. *Play-By-Play Sports Modeling with Deep and Recurrent Neural Networks.* 2016