

Progress Report

By Alex Hoffer, Jake Smith, and Chen Chongxian

Team Name: Stat Champs

Abstract

The application of machine learning to Biochemistry and Biophysics has enabled researchers in this field to make remarkable discoveries, such as the generation of new DNA sequences. However, students of Biochemistry and Biophysics do not get the opportunity to learn machine learning. Dr. Victor Hsu of the Oregon State University Biochemistry and Biophysics department has commissioned the Stat Champs to produce an instructional module to give his students the chance to familiarize themselves with machine learning. The software product the Stats Champs have agreed to develop is a web page that allows students to train a machine learning model based on the college basketball statistics and machine learning algorithm of their choosing in order to produce a March Madness bracket. This will help students understand how machine learning algorithms produce models and how inclusion or exclusion of certain data can influence such models. Over the course of Fall term 2016, the Stat Champs have developed materials such as design documents and technology reviews in order to prepare for the engineering of this module. This report comprehensively describes the progress the Stat Champs have made thus far.

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1 Introduction

This report chronicles the progress the Stat Champs have made on developing the machine learning instructional tool. As of the end of Fall term 2016, the progress that has been made consists of a project statement, a requirements document, a design document, a technology review, and this progress report. The remaining sections of this report are devoted to each of the individual members of the Stat Champs to describe their experiences this term as well as their contributions to these documents.

2 Progress

2.1 Alex Hoffer

2.2 Chongxian Chen

2.3 Jake Smith