# **Teaching Report: Fall 2020**

For the fall semester of 2020 my primary focus this semester has been completing my qualification research and paper so that I may take the exam sometime early spring. Furthermore, I've been focused on developing my teaching skills by acting as a teaching assistant and creating/running the labs for ITCS 6156: Intro to Machine Learning. I have been working with Dr. Lee to prepare some guest lectures this semester as the graduate course has no labs. Due to the COVID-19 outbreak the course was conducted online as well. In addition, I have continued attending the teaching seminars to build on my teaching abilities, which will hopefully prepare me for teaching my own class. In parallel with these activities, I have been attending teaching workshops. Lastly, I have continued work on my research, website and teaching portfolio when time has permitted.

## Teaching ITCS 6156: Intro to Machine Learning

As I mentioned before, my primary focus has being a teaching assistant for the ITCS 6156 graduate course taught by Dr. Lee. This course is taught once a week for two and a half hours. The duration of the course is entirely lecture based which pushes my role towards providing additional lectures and helping students outside class. Due to the COVID-19 outbreak this course was conducted online so classes were held in Zoom.

My focus for this class was providing three guest lectures which helped supplement the current topic of the class. I provided three lecture on Python tips and tricks, TensorFlow and neural networks, and interactive reinforcement learning. Other than this, I provided a great deal of help outside class by helping students with their programming assignments and holding office hours.

I have also been maintaining aspects of the canvas page and communications with students. Regarding the canvas page, I have been creating assignments, and managing the files. On top of this, I have been actively engaging with students on Piazza and Discord to answer questions about programming assignments.

### **Teaching Seminar**

Every Tuesday for this semester I attended a graduate teaching seminar (ITSC 8665). This semester the seminar covered a variety of different topics concerned

with what it is like to be TA. The goal for this semester was to, as class, begin writing a TA handbook to help introduce new TAs into the UNCC CS department teaching atmosphere. I wrote an entire section devoted to running and conducting labs based on my experience doing so in ITCS 6156. Other than this, the class explored various research papers concerning teaching styles, data-driven teaching, and other teaching related research.

#### **Qualification Exam**

Additionally, I spent a large portion of my time researching and writing my qualification exam on the intersection of reinforcement learning and brain-computer interfaces. My paper is very close to being finished and I plan to schedule the exam for sometime in early spring.

## **Teaching Workshops**

As it was for the prior semesters I have been attending teaching workshops on campus. Due to the COVID-19 outbreak these workshops have been conducted online and focused on online teaching. Below I have given summaries of each of the workshop I attended this semester.

#### Putting the "Personal" in Personalized Online Learning

This workshop looked at four aspects of potentially personalizing online learning. The first aspect covered engaging students online with particular assignments, specifically focusing facilitating student discussions. The second aspect covered flexibility in the sense of deviating from the traditional classroom ideas. In particular this aspect went into building student relationships rather than solely focusing on the professor and class. The third aspect looked at greater differentiation between types of students and how to balance different skill levels. Lastly, the fourth aspect looked at increase instructor-student time. The goal of this aspect is to highlight the importance of personalized attention and provides examples of how to do so (e.g., multi-part projects with submissions and revisions provided by instructor).

The main takeaway from this workshop is the idea of creating more "sociable" environments for students in-person and online.