Teaching Statement

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Teaching facilitates understanding. Presenting materials to others, one is forced to think through the material thoroughly, which can inspire ideas and thus be beneficial to research. I would like to apply my teaching experience in econometrics, finance, and statistics to teaching econometrics and finance courses. My experience has taught me that students learn better by solving real-world problems in which they can apply the theories and models they learn in the classroom. Also, teaching style depends on the audience. The proportion of detailed elaboration to brief coverage can be very different in introductory and graduate-level courses. For small class sizes, teaching becomes more effective when the instructor modifies the syllabus according to students’ needs.

I was the instructor for Econ: 612 Time Series Econometrics in the Summer of 2016 at the Economics department of Duke University. This course was designed as a graduate-level course covering classic topics in time series econometrics with economics master students as the target audience. However, I found in the first class that all four students in my class were PhD students with various backgrounds, and they wanted to learn certain topics for their own research. Therefore, I took a survey of their goals and redesigned the syllabus. We ended up successfully covering ARMA process, VAR process, linear regression models, unit root process, and ARCH and GARCH processes as well as high-frequency time series. Some of the topics were covered only briefly, but references were given in case students wanted to know more. Despite the rich content, students spent more effort on topics they believed to be useful, and they all did well.

The aim of most students taking econometrics and statistics courses is to understand the theories and use these tools to solve real-world problems. Thus, when I was setting up the econometrics course, I downloaded various time series data in the fields of macroeconomics and finance and asked students to program and implement the models for estimation and forecasting. Through this process, students not only came to understand the concepts more fully but also gained programming and problem-solving skills. For both graduate and undergraduate students, the ability to deal with data and interpret results is in high demand by employers nowadays.

I have acted as a teaching assistant for two undergraduate courses. One course was on the investment and financial market. I assisted giving lectures on programming and leading discussion sessions as well as developing and grading problems sets and exams. The other course was an introductory statistics course for which I led labs, held office hours, and graded homework and exams. I also worked as a personal economics tutor for undergraduate students. These interactions with undergraduate students helped me to learn how to convey information concisely and clearly to students with little background knowledge. It is crucial for undergraduate students to understand key concepts well, so effective teaching needs to consist of easy-to-understand elaborations and examples. Undergraduate students spend much of their time reading lecture materials and doing homework, so I do believe instructors should ensure that all reading materials and homework problems are well designed so that they truly inspire students.