Teaching Statement

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Introduction.   As a member of the operations community, I aim to maximize my impact on the field and one of the most direct ways to do that is in the classroom. In few disciplines is the classroom experience more important than in operations, where even the introductory kit of analytics and optimization tools can have a powerful, pervasive, and prolonged impact on the decisions a student makes throughout their career. Speaking from experience, I can trace my success as a researcher back to the numerous excellent instructors who have ferried me through my career, and I feel compelled to pay forward the excellent education provided to me.

My teaching philosophy centers on repetition and simplicity. I believe a good instructor helps students help themselves, and I try to accomplish this by providing varied instruction, utilizing overlapping sources, and presenting diverse perspectives on the same topic. I make time for this multi-faceted approach by focusing my lectures on simple examples which illustrate the core ideas and build students confidence and engagement.

I feel fortunate for the ample opportunities I have had to work with students throughout my graduate education. Those experiences were formative in my development as an educator and compelled me to seek employment in higher education. In the subsequent section, I describe a subset of the most personally and professionally impactful experiences in my teaching career.

Teaching Experience.   I served as a teaching assistant in the Department of Industrial Engineering and Operations Research for four years, and as part of four different courses. In my first year, I was a teaching assistant for both halves of the core sequence for incoming M.S. in Operations Research and M.S. in Management Science & Engineering students. The first course in the sequence, *Optimization Models & Methods* (IEOR 4004), covered linear programming, network flow models, and their applications. The second course, *Stochastic Models* (IEOR 4106), covered stochastic processes, particularly discrete and continuous time Markov Chains and their applications. Through my experience as a teaching assistant in these courses, I have gleaned an invaluable perspective on how these fundamental topics are taught and where students struggle when being exposed to the technical ideas underpinning operations management. Additionally, I served as the teaching assistant for a PhD level seminar course titled *Learning and Optimization for Sequential Decision Making* (IEOR 8100), which covered multi-arm bandit problems and Markov decision processes.

In my third and fourth year I served as a head teaching assistants for *Operations Consulting* (IEOR 4111). Operations Consulting is a core course for master students in Columbia's Management Science and Engineering track. As the teaching assistant, I supervised teams of students working on projects that apply tools from operations research and machine-learning to real-world

consulting projects. Sponsor companies include Standard & Poors, Louis Vuitton, FreshDirect, The Gates Foundation, and Rent the Runway. Being a teaching assistant for this course was a highly valuable experience in coordinating industry partners, as well as in guiding students who had not been exposed to industry before, and managing the cultural clashes between students and industry professionals.

Related Activities. Outside the classroom, I have actively engaged in furthering the teaching mission of the department, serving as a student organizer for the IEOR-DRO Seminar and a mentor for incoming PhD students through the Peer Connect Program. Going forward, I will be attending the Teaching Effectiveness Colloquium at INFORMS 2018 to further cultivate my personal growth as an instructor.

Potential Courses. Drawing on my experience as a teaching assistant for Operations Consulting, as well as my industry experiences at Amazon and MediaMath, I would be highly capable and effective in a role teaching MBA courses. I am particularly well suited to teach courses in Business Analytics, Operations Management, and Revenue Management. Looking ahead, I would be grateful for the opportunity to develop new courses focusing on innovations in e-commerce. Specifically, I would jump at the opportunity to design a course that marries research in pricing and revenue management with industry practices, placing a particular emphasis on data-driven models.