Ananth Balashankar

Teaching Statement

As a Ph.D candidate in Computer Science, I have worked on interdisciplinary research projects and taught computer science courses, by engaging with a diverse body of students in exciting learning and collaborative environments. I would like to pursue a career in teaching as a faculty in a business school as the environment is interdisciplinary in nature, that provides a great learning platform with students and faculty from a wide range of professional and business backgrounds. My approach to teaching is demonstrative, as I look to impart practical skills required to solve business problems in the real world. To inculcate an inquisitive and hands-on culture in the classroom, I leverage examples from my professional career at Google AI and research career at New York University, and encourage the development of technological and business rigor in students. During my Ph.D, I have taught two interdisciplinary courses as a teaching assistant and lab instructor, which has provided me with valuable experience and insights into making the classroom experience accessible and fulfilling for all students.

Thus far, I have been a teaching assistant/lab instructor in both an NYU Stern MBA and MS in Computer Science, Entrepreneurship and Innovation (MS-CEI) level technology course: Foundations of Networks and Mobile Systems (CSCI-GA. 2630-001 and 002), and a graduate level Machine Learning (ML) and Computer Science course: Big Data and ML Systems (CSCI-GA. 3033-016). The CSCI-GA. 2630-001/2 course taught in Fall 2021, is an interdisciplinary course targeted to educate future tech-savvy Product Managers about the internet and networking technologies that power today's globally connected world. This course aims to reach across technological barriers and onboard MBA and MS-CEI students with little to no CS background, so that they can navigate the tech world with foundational understanding of the frameworks of web and mobile applications. I have designed the labs in such a way that any student not familiar with coding too, can understand and get hands-on knowledge of the functionalities of technologies like DNS, HTML, JavaScript, SQL, PHP, React, etc. These technologies are not only good to know for a manager, but, based on my personal experience, a business manager with a clear understanding of these would be capable of efficiently leading interdisciplinary technology and operations teams in companies like Google. The student feedback, till now, both during my one hour lab session teaching 100+ students at NYU Stern and through the Zoom-based virtual office hours and recitation sessions, have been incredibly positive. The CSCI-GA. 3033-016 course taught in Spring 2019, on the other hand, was both a foundational course on the ML tools and algorithms that enable efficient decision making in the business world. These include the Spark distributed ML computing platform, PageRank algorithm, deep learning neural network models for text processing, image recognition, graph learning, multi-arm bandits, recommender systems and healthcare inference tasks. The lab assignments I designed enabled the students to get started on their term projects deploying ML models to solve a business objective or a decision making task of their choice.

In each of these classes, I understood that an instructor's performance can be measured by the learning of students who have limited background on that topic. Many MBA and MS students have not taken Computer Science or Machine Learning courses, and introducing them to real-world systems they are aware of, but not how they work, was the biggest highlight of my teaching experience. To facilitate this, I start with tangible real-world applications that every student has familiarity with, and then motivate them to think on the rationale and functionalities needed to enable them. This provides a conducive environment for all students to participate through first-principles thinking rather than giving preference to students who are familiar with technical jargon. Modern decision makers need principled thinking with a clear understanding of the purpose behind each technological tool, so that they can re-purpose them when the time is right. Due to this teaching approach, I often encounter out-of-the-box thinkers in class, who propose alternate approaches to solve the same business problem and their findings have further objectively improved overall participation in subsequent classes.

My purpose of teaching is to foster a common understanding between technical and managerial practitioners in businesses. Over the years as a software engineer at Google interacting with Product Managers on optimizing business objectives, and a Ph.D student studying interdisciplinary ML application domains with expert knowledge, I have gained valuable insight in communicating with a diverse audience and the common good that comes out of the synergy. I believe that my role as an instructor is to help build the leaders of tomorrow who approach to solve social and business problems with technical feasibility in mind. Given my teaching and research background, I would be particularly interested in teaching interdisciplinary courses on computer science, technology, operations, machine learning, and management. Specifically, I would like to create and teach courses on technology product management, decision sciences, AI, like "Business Analytics", "Dealing with Data", "DevOps and Software Engineering", and "Emerging Technologies".