The performance of a team depends not only on the abilities of its individual members, but also on how these members interact with each other. Inspired by this premise and motivated by a large number of applications in educational, industrial and management settings, team-formation problems aim to engineer teams that are effective and successful.

In the first (and largest) part of the talk we will discuss computational approaches for formalizing and solving team-engineering problems. We will show how we can use models from social-theory to capture the dynamics of the interactions between the team members and how these dynamics affect the complexity of the underlying computational problem of team engineering. We will also discuss effective algorithms that can take into consideration these complex interactions. In the second part of the talk we will discuss some future work in the domain of team engineering and demonstrate its connections to some fundamental open research problems in data mining and knowledge discovery.

Bio: Behzad Golshan is a senior PhD student in the Data Management Group at the Computer Science Department of Boston University. Before joining the PhD program, he received his bachelor’s degree in Computer Engineering from Tehran University. His research interests span the areas of algorithmic data-mining, social networks, and computational social science. Behzad’s academic work is mostly focused on team formation with applications in social networks and education sciences. His industry research experience includes working at Microsoft Research (SVC) during Summer 2014, and oDesk (now Upwork) during Summer 2013.