Jijun’s Biases

My education background:
• Undergraduate in Mechanical Engr. (Beijing Univ. of Aero. & Astro. )
• Master degree in Aero. & Astro. (Stanford Univ.)
• One year graduate program in Industrial & System Engr. (UW - Madison)
• Now in ESD PhD program (Research on Enterprise Architecting in LAI)

How do I think about problems?
• Identify the problems want to solve
• Laws of physics, principles from sub-discipline
• Assumptions - engineering is always a way of approximation
• Mathematical abstraction and modeling (analytical or numerical)
• Computer - aided problem solving through iterative ways (simulation)
• Validation: simulation or prototype
• Implementation of designed solutions (not always work)
Jijun’s Biases

My research on Enterprise Architecting

- What is enterprise? -- Scope
- “What is” question -- Architecture
- “What might be” and “What should be” -- Architecting
- Focus on “enterprise modeling and simulation”
  (why to model, what to model, levels of abstraction)
- Approaches for modeling: Networks, Agent-based modeling, Engineering methods,…
- Simulate complex behaviors, such as:
  Emergence, Nonlinear dynamics, self-organization, co-evolution,…
- Validate models: Fidelity of models, simulation vs. empirical case studies
- Fields of knowledge I need to acquire: Network Analysis, Complexity Theory, Computational Organization Science,…