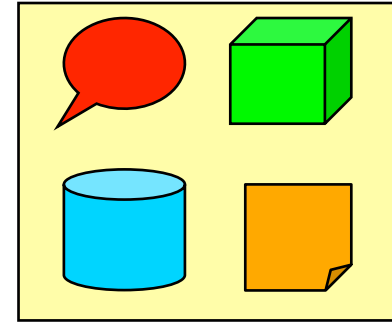- Software Engineering

- Programming Languages

- Algorithms and Complexity

- Databases

How to build components from scratch

- Software Architecture

- Component-based Software Engineering

How to design large systems out of reusable components