I’ve mentioned the knowledge grade against every topic, that I think I possess in that particular area.  
  
Written in no particular order of interest:

1. Distributed System Design:  
   As per distributed, I’d love to learn more about Sharding, Hashing, CDN/Edge, Caching (Memcache, Redis) etc, the complete stack of distributed platforms. This itself contains 2-3 different sub domains to learn. A specific sub-part, I have a strong liking for, is Caching based on SSD’s and the growth of it in the past few years.  
   **Knowledge Grade : 2/10**
2. Hypervisors/Containers/Cloud/Docker:  
   I have an utmost interest in learning or creating something, where software itself can be used in virtualisation of a system. All these sub-topics individually form a heavily studied research case in them.

**Knowledge Grade: 2/10**

1. 802.11 Protocols:  
   I would like to learn more about Wireless network protocols and I feel that a lot of advancement needs to be done in this particular field, be it LTE, 802.11ac or 5G. Energy consumption in 802.11 is one problematic thread that I know about and experience on daily basis, and there must be many more that I don’t know of and would like to figure out solutions for.  
   **Knowledge Grade : 4/10**
2. Blockchain:  
   I’m not sure whether this comes under Systems per say, but I would love to learn more about the decentralization and P2P aspects of it.  
   **Knowledge Grade : 3/10**[*Since, I mentioned P2P, I would also like to examine something like* [*WebTorrent*](https://github.com/webtorrent/webtorrent)*. I’m still not sure how they achieve the benchmarks they mention for rather seamless data merging even on less tracker availability.]*
3. Security:  
   Secure data is one area that I’d love to learn more about. This will definitely help me make use of Algorithms also (crypto and graph-algorithms).  
   **Knowledge Grade: 2/10**
4. Data Compression + Load Balancing:  
   I took an elective course in undergraduate level, and have a slight know-how of frames, blocking artifacts, I-B-P frames etc. Efficient frame prediction + Load Balancing is an area of interest of mine. This particular field would also include use of two major domains of Computer Science Research : Machine Learning and Systems.  
   **Knowledge Grade: 4/10**
5. Multithreading, locks, synchronization:  
   I think all System Design Projects need to come across concurrency issues at least once in their development cycle. I have some experience of tackling issues related to asynchronous task race condition, program stack space and have an experience in GDB use to counter these problems.  
   **Knowledge Grade: 3/10**
6. Other Topics (that I only know about in abstracts):  
   Systems Scaling, Big Data (Map/Reduce), tech stacks like [Spinnaker](https://www.spinnaker.io/), Energy Efficient Systems, Cyber Protocols (DDOS, HITL Attacks), Microservices Division, Mobile Computing (esp Information Organization in this), Performance Analysis and Modeling on it.  
     
     
   I didn’t mention any particular topic related to pure Architecture, as the only time I religiously studied Architecture was during M.Tech Cs612 course, and that too at a pretty fast pace. But I did liked studying about Pipelining, CISC/RISC, Energy Utilisation, Branch Prediction, almost every part of it. Though I still find it hard thinking it on a hardware level [the DMA’s, NAND’s, NOC’s].  
     
   I still don’t know much about many of the Systems’ areas but I’d definitely like to explore them as well.