

Dibyendu's Interests, Goals and ...

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Summary :

0.1 Pro Stuff :

- **Zone : Core Professional for Survival** - Enterprise Architecture, Software Architecture, Infrastructure/Cloud Architecture, Design Patterns, Software Engineering Practice, Core Programming Paradigms, Databases, Information Retrieval, Machine Learning Stack and Networking.
- **Zone : Core Domain of Economics and Finance** - Basic Economic Models, Finance Core from Mehrling, Banking, Payment Systems and Blockchain derivatives.
- **Zone : Product Dev** - Use graph database, latest Dev tools, new language to create a CMDB and a architecture dependency management tool all the way to code level views; SE evolution demo for all layers of the stack.
- **Zone : Beauty of Math/CS** - Optimization and Distributed Computation

0.2 Interests :

- **Zone : Theory of Computation** - Models of computation from Turing Machine, Lambda Calculus, CCS, π -calculus, Actors etc.; Computational Complexity, Algorithms, Distributed Computation, Logic, Category Theory, Formal methods applications.
- **Zone : Physics and EE/Energy** - From first principles derive equations representing phenomena and energy sustainability; understand YM-MGH Claymath problem.
- **Zone : Biology and Healthcare** - Life, evolution, gene and future of healthcare using technology writings.
- **Zone : Automobiles and Flight** - Evolution of automobiles, Evolution and design of airplanes, launch vehicles and spacecrafts.
- **Zone : Control Theory** - Summary of core models, results, insights, eras/genres, overlaps; understand Witsenhausen Counterexample state of the art.

Core Books :

1. Ajay Khemkalyani and Mukesh Singhal, "*Distributed Computation*", 2009.
2. M. Herlihy and Nir Shavit, "*Art of Multiprocessor Programming*", 2012.

Core Papers :

1. Alan Turing, "*On Computability and...*", Journal of the..., 1936.