



Koita Center for Digital Health - Minor

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3rd year Chemical

01 Agenda



- Brief overview of the minor courses I have completed till now
- My motivation and how the minor will help me in the future
- Logistics of the minor
- Words of advice.

02 Brief Overview of the minor courses I've completed



- DH302 - Introduction to Public Health Informatics (Inhouse) - Prof Ganesh Ramakrishnan (CSE)
 - Overview of the healthcare domain knowledge and CS fundamentals required for the field
 - Course Content:
 - Introduction - what is healthcare informatics, terminology & etymology, body systems
 - Ethics module by Prof Siby George,
 - Introduction to healthcare systems in India, epidemiology by Prof Puneet Misra, AIIMS
 - CS Fundamentals: Basics of application software, system software, program software, file systems, database and information systems, network basics, security
 - Evaluation was interesting, as it required an application of the concepts taught in class rather than rote learning. Project was open-ended and we had the opportunity to execute implement anything we wanted to, under the purview of healthcare tech

02 Brief Overview of the minor courses.... Contd.



- CS631 - Implementation techniques for relational database systems - Prof Sudarshan (CSE)
 - Course Content:
 - Based on PostgreSQL,
 - Physical Storage systems, data storage structures
 - Indexing, query processing and optimization,
 - Transaction processing and concurrency control
 - Database System Architectures, Big Data
 - Parallel and Distributed storage, query processing and transaction processing software, file systems, database and information systems, network basics, security
 - Evaluation - Exams were conceptual and required deep understanding of the course material. Although not a hard prereq, I would advise doing a UG DBMS course before this. Project was about extending features in postgresSQL.

02 Brief Overview of the minor courses.... Contd.



- CS419 - Introduction to Machine Learning (CSE) - Prof Abir De (CSE)
 - Very mathematically inclined, good for people interested in going for the research side of ML
 - Course Content: Theory behind all the ML/DL algos. Programming only through the assignments.
 - Evaluation: Exams require deep conceptual understanding. Project component.



03 **My motivation and future prospects**

04 Logistics of the minor



- 1 compulsory + 3 baskets -
 - [List of Courses](#)
 - Healthcare Standards, Clinical Applns: BB, Inhouse DH (epidemiology, wearables), ME (biofluidics)
 - Healthcare Informatics and Analytics - EE, SI, CSE, Inhouse DH,
 - Healthcare systems, Policy, Ethics - HS, PS, Inhouse DH
- Research project for 6 creds

05 Words of Advice



- Student centric
- Internships



Thank you!

Signing off,
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