

SUMMARY OF RECENT ONLINE TECHNICAL COURSES, one an introduction to databases, and another, a high level exploration of spatial computing with databases, maps and GPS – see my Linked In Project Section for details and github links to files:

- **The database course introduced the various database technologies with an assignment to do with each:**
 - SQL
 - NoSQL
 - JSON
 - XML
 - XSLT
 - Xquery/Xpath
 - Relational Algebra
 - DTDs
 - BCNF
 - MVDs4NF
 - Normal Form
 - UML
 - Relations
 - Modeling
 - Views
 - Recursion
 - Non Linear Mutual Recursion
 - Referential Integrity
 - Constraints
 - Indexes
 - Triggers
 - Transactions
 - Isolation Levels
 - Functional Dependencies,
 - OLAP
 - Authorization
 - Also discussed but did not do projects in MySQL.
- **From GPS and Google Maps To Spatial Computing Course Description (concepts, not programming course for me):** From Google Maps to consumer global positioning system (GPS) devices, spatial technology shapes many lives in both ordinary and extraordinary ways. Thanks to spatial computing, a hiker in Yellowstone and a taxi driver in Manhattan can know precisely where they are, discover nearby points of interest and learn how to reach their destinations. Spatial computing technology is what powers the Foursquare check-in, the maps app on your smartphone, the devices used by scientists to track endangered species, the routing directions that help you get from point A to point B, the precision agriculture technology that is

revolutionizing farming, and the augmented reality devices like Google Glass that may soon mediate our interaction with the real world.

- This course introduces the fundamental ideas underlying spatial computing services, systems, and sciences.
 - **Subject Areas covered:**
 - the nature of geospatial information
 - proper statistical frameworks for working with geospatial data
 - key algorithms and data structures
 - spatial data mining
 - cartography/geovisualization
 - addressed applied topics such as:
 - where to find spatial data
 - how to use powerful open source software to analyze and map spatial data
 - frameworks for building location-based services.
 - **Topics covered:**
 - defining spatial computing
 - spatial query languages
 - spatial networks: motivation, society uses
 - conceptual and mathematical models
 - need for SQL extensions
 - CONNECT and RECURSIVE statements
 - storage and data structures
 - algorithms for connectivity query
 - algorithms for shortest path
 - spatial data mining
 - volunteered geographic information
 - positioning
 - cartography
 - future direction topics in these areas.