ALOK THATIKUNTA

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EDUCATION

Stony Brook University, Stony Brook, New York
Master of Science, Computer Science, August 2017 - December 2018 (GPA - 3.92/4.0)
International Institute of Information Technology, Hyderabad, India
Bachelor of Science, Computer Science, August 2012 - June 2017 (GPA - 7.25/10.0)

EXPERIENCE

Microsoft, Hyderabad, India
Software Engineering Intern, May - July, 2016

- Developed an application for User Classification and created Cohorts for Cortana (in C#).
- Fast K Means and Hierarchical Agglomerative Clustering was used for scaling to millions of users.
- Used for selecting relevant, diverse set of users for testing of products.

International Institute of Information Technology, Hyderabad, India
Head Teaching Assistant, Introduction to Databases, Science 2

- Taught SQL, XML database systems for undergraduate students.
- Designed problems for solving in assignments and lab exams.

PROJECTS

Wikipedia Search Engine
Information Retrieval and Extraction

- Implemented an efficient search engine (in Python) on entire dump of Wikipedia data.
- Indexing was done for fast search, return 100 queries per second. TF/IDF was used for ranking.

Mini SQL Engine
Database Management Systems

- Built a primitive DBMS which can compile, optimize and execute SQL queries (in C++).
- Performed various optimizations such as LRU caching, Paging and Indexing.

Diversity Analysis of Faculty
Data Science Fundamentals

- Constructed a rich dataset with nationality, ethnicity labels, school and rating for each faculty.
- Analysis was done at state, department and school levels. Interesting hypothesis were constructed.

Salmon Modules for MultiQC
Computational Biology

- Implemented parser for various modules of Salmon, an open source quantification tool for RNA-seq.
- Generated feature specific plots, heatmap for easier comparison between various samples.

RELEVANT COURSEWORK

Graduate: Data Science Fundamentals, Algorithms, Operating Systems, Big Data Systems
Undergraduate: Information Retrieval, Database Management Systems, Statistical Methods in AI

SKILLS

Languages : C++, Python, C#, MySQL, Javascript, CSS, XSB-Prolog

ACHIEVEMENTS

- Ranked 40th (2017) at ACM ICPC Greater New York Region Finals.
- Ranked 82nd (2016), 98th (2015) at ACM ICPC Asia Amritapuri Region Finals, of over 2000 teams.
- Problem Setter at Codecraft, an online programming competition held at Felicity, IIIT-H Annual Fest.
- Won 1st prize in Inter batch Badminton tournament held at IIIT-H.