

# ALOK THATIKUNTA

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## EDUCATION

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### **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

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### **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.
- Applied clustering to suggest recommendations based on user preferences.

### **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

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### **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.

### **Nationality and Ethnicity Analysis**

*Data Science Fundamentals*

- Analyze nationality, ethnicity distribution of community using only name of a person.
- Identified fake followers of popular users on Facebook.

### **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.

## SKILLS

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

## ACHIEVEMENTS

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- 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.