Siddhartha Reddy Kothakapu

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EDUCATION M.Tech in Information Technology (3.71/4 CGPA)

Jun 2006

International Institute of Information Technology, Bangalore

EXPERIENCE Senior/ Software Engineer, Ziva Software Pvt. Ltd., Bangalore

Jul 2006 - Dec 2008

Ziva Software is a Venture Capital funded startup based out of Bangalore, providing products and services in the Mobile Search domain. Established in late 2005, Ziva has provided search solutions to different players in the mobile industry including several operators and content owners. In 2007, Ziva launched Zook, it's consumer facing mobile search system.

Was the first non-founding employee to join the company. Have been a core member of the team, involved in most of the projects, and actively participated in defining the development roadmap for them.

Interests Information Engineering—Retrieval, Extraction & Management, Scalable Architectures,

Distributed & Cloud Computing, Usability & User Experience

SKILLS Languages: Perl, Java, PHP, Ruby, Javascript, C/C++, C#

Frameworks/Libraries: Hadoop, Nutch, Lucene, Solr, Sphinx, WEKA, Ruby on Rails,

Prototype

Others: HTML, CSS, JSP, Bash Shell Scripting

SELECTED Buddhi Online, Ziva Software PROJECTS

Team Size: 1

Nov 2007 - Present

A system to fetch Yahoo! BOSS Web search results in response to a user query, fetch the result web pages and extract *snippets* that can possibly provide an answer to the query right away.

Developed a prototype of the system as part of a feasibility analysis. Working on building out the complete system in order to deploy it in production.

Buddhi, Ziva Software

Team Size: 2-3

Apr 2007 - Present

A dream to crawl the Web and automagically extract *information content entities* off the crawled pages.

- \diamond Designed the Map-Reduce based architecture for the system.
- ♦ Implemented a *focused crawler* based on the *Nutch* open source crawler. The crawler has been deployed and regularly crawls major portions of the Web.
- ♦ Introduced the concept of—and implemented—a *HTML reducer* that transforms complex HTML pages into minimal HTML for easier analysis. This is the first step of the analysis performed by the system.
- ♦ Defined a page abstractor as a component that discerns logical structures from unstructured HTML. Implemented a table abstractor that identifies tabular structure in web pages—even when the HTML does not contain any tables per se.
- \diamond Set up the Hadoop based infrastructure for the crawling and extraction. Initially set it up on a cluster of Amazon~EC2 machines with Amazon~S3 as a data store. Later moved it to a set of dedicated machines.

Zook, Ziva Software

TEAM SIZE: 2-3

Jan 2007 - Present

Ziva Software's flagship mobile search engine. The main promise is to provide exact answers to questions in the least number of clicks; implying that the search engine provides information right away rather than directing the user to another website that *might* have the information.

- ♦ Set up the search system infrastructure.
- \diamond Designed the *User Experience* and *User Interface* of the WAP and SMS interfaces.
- ♦ Responsible for deploying releases.
- ♦ Created a HTTP based API for accessing the search system.

Zivabot, Ziva Software

Team Size: 1

Aug 2006 - Oct 2006

A scalable, highly-configurable, generic scraping system for crawling specific websites containing useful information and then extracting that information.

Was fully responsible for the design and implementation of the system. Configured the system and set it up to work with an initial set of websites; this provided the base content for the Zook mobile search engine.

Better Web Buys

Team Size: 2

Feb 2006 - May 2006

A faceted price comparison shopping search engine with over 20 million items across more than 100 merchants.

Was completely responsible for the whole project right from fetching the product feeds, parsing and storing them in a database, indexing, searching, user experience and setting up the entire system on a cluster of machines. Used *Sphinx* as the backend full-text indexing system.

yadb - Yet Another DataBase, IIIT, Bangalore Team Size: 3 Aug 2005 - Dec 2005

A reasonably *complete RDBMS* with a buffered memory manager, B+ tree indexing and a complete database management module including support for basic SQL, table management, paged storage etc. Part of the *Advanced Databases* course.

Top News, IIIT, Bangalore

TEAM SIZE: 1

Sep 2005 - Oct 2005

A system to bring out the top news of the hour by clustering the news items obtained from the feeds provided by several news sources. Any news being discussed by multiple sources within a given (variable) timeframe is marked as top news. A bi-partite graph based clustering algorithm was used for clustering based on just the title and summary of the news item. Project for the Web Information Retreival course.

SiDuSE, IIIT, Bangalore

Team Size: 2

Aug 2004 - Sep 2004

A Simple Desktop Search Engine for Linux/UNIX systems. Creates a Trie-based full-text index of the files on the system. Apart from allowing the basic $AND,\,OR$ & NOT operators, the system supports complex querying through nested queries, phrase matching and prefix queries. Part of the Mathematical Foundations of Computing course.

SOS – S Operating System

Team Size: 2

Sep 2002 - Oct 2003

A simple monolithic kernel with kernel level threads, kernel level IPC and advanced memory management.

PUBLICATION Measures of "Ignorance" on the Web

Dec 2006

International Conference on Management of Data, Delhi, India

Honors

- \diamond Valedictorian for the class for 2006 at IIIT, Bangalore.
- ♦ Was awarded the *Honeywell Scholarship* for academic excellence at IIIT, Bangalore.
- ♦ Was chosen as the *employee of the year* for 2007-08 at Ziva Software.