

# Siddhartha Gunti

Computer Science and Engineering with Honors  
Indian Institute of Technology Bombay  
Board of Intermediate Education  
Board of Secondary Education

B.Tech  
7.56/10  
94.50 %  
91.67 %

## WORK, RESEARCH & ENTREPRENEURIAL EXPERIENCE

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**GOLDMAN SACHS PVT LTD, INDIA**  
**Senior Analyst**

[Jun' 14 – Present]

**PAXPLAY ENTERTAINMENT PVT LTD, INDIA (Game Studio Startup)**  
**Co-founder and Developer**

[Feb' 13 – Feb' 14]

- Responsible for development of UI and animation effects in the games, integrating with design department
- Ideated and designed features for the companies' games and contributed to their timely upgrades and bug fixes

**SAMSUNG ENGINEERING LABS, NOIDA, INDIA**

[May' 13 – Jul' 13]

*Intern - Android source mod & in-call application*

- Developed a **conversation data coupling feature** for smart phones to enhance the calling experience
- Developed **applications** for providing Samsung devices a canvas to save and view timeline of call data
- Created an **Android Jelly bean OS** mod and an API for other applications to modify conversation data

**UNIVERSITY OF ALBERTA, CANADA**

[May' 12 – Jul' 12]

*Research Intern - Simulation of Wireless Sensor Networks*

*Guide: Prof. Ehab Elmallah, CSE, UoA*

- Created a **simulation environment** to analyze wireless sensor networks (WSN) using OMNET++
- Conceptualized the theory for evaluating WSN considering sensor or node failures and intrusion paths
- Gave seminar at **University of Alberta Research Symposium** and discussed usage of simulation environment in reducing network cost and suggesting improvements for surveillance WSN

## PUBLICATIONS

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**Discrimination Net - Global WordNet Conference (GWC)**

[Jan' 14]

- **Co-authored** and published the long paper under Natural Language Processing domain
- Laid groundwork for a rule based framework to be called Discrimination Net, which will speed up process of deciding the correct meaning of a given word, Word Sense Disambiguation

**"Hungry Hamster" – Google Play Store**

[May' 13]

- Developed the action arcade game in **Unity** and published in android market
- The game has received more than **50,000 downloads** over the world and has been rated **4.0 on a scale of 5**
- Led the development of GUI, fluid animation effects and new features for the game

## ACADEMIC PROJECTS (<http://www.github.com/siddug>)

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**CONTEXT BASED MACHINE TRANSLATION FOR INDIAN LANGUAGES (BTP Project-II)**

[Jan '14 – May' 14]

*Guide: Prof. Pushpak Bhattacharyya, CSE, IITB*

- Developed **language independent** context based **machine translation** platform
- Designed algorithms and made the platform extendable for low resource Indian languages
- Tested and optimized techniques to make the system faster for language pairs Hindi-English and Hindi-Marathi

**MECHANISMS FOR SENSE DISCRIMINATION (BTP Project-I)**

[Jul '13 – Dec' 13]

*Guide: Prof. Pushpak Bhattacharyya, CSE, IITB*

- Developed a **resource based framework** which will help in finding relevant meaning of a word in given sentence (**Sense disambiguation**) based on *clues* provided in the context
- Designed scoring techniques useful to automatically add potential clues of a particular meaning of a word

## WORDSMITH | Databases Course Project (Used : JSP, JDBC, MySQL)

[Oct' 12 – Nov' 12]

- Created a **social networking website for writers** where writers can collectively work on articles
- Led the development of features like **friends suggestions, public articles feed**, article notifications and stylistic article editing

## INDIAN TRAFFIC SIMULATION | Data Structures Course Project (Used: C++, OpenCV)

[Oct' 11 – Nov' 11]

- **Simulated** a four-way Indian traffic intersection and displayed graph animations for **representative metrics**
- Handled GUI and designed algorithms considering **real life situations** and traffic mentality

## BONKHEADS GAME | Functional Programming Course Project (Used: PLT Scheme-Lisp)

[Feb' 11 – Apr' 11]

- Developed a single player game similar to Mario using **Object Oriented Programing** in functional language
- Developed **AI techniques** which increase user difficulty and adapt clever strategies for eight levels

## MISCELLANEOUS

- **A\* algorithm** : Implemented A\* in generic fashion and solved puzzles like Missionary Cannibal and 8-puzzle
- **Yahoo HackU Project** : Developed a chrome application to find topic of an article and meaning of words in it
- **Spell Checker** : Developed an application which suggests corrections for commonly misspelt words
- **In-sem Intern**: Developed an interactive shooting game, to be used as teaching tool, for a robotics academy
- **Compiler** : Implemented parsing, AST creation and SPIM code generation stages for restricted C programs
- **Human body modeling** : Modeled a minimalist human body with all joints and motion using **open GL**
- **Virtual Memory Module for OS/161** : Developed Memory Management module for OS/161, simplified operating system; Handled swap space management, page faults and page replacement

## POSITIONS OF RESPONSIBILITY

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### HOSTEL DANCE HEAD

[Jul '11 – Mar' 14]

- Worked as Hostel Music and Dance secretary and played pivotal role in organizing hostel music events
- Led the dance team and choreographed performances for the institute cultural fest and competitions
- Awarded Hostel **Special Mention** for the exemplary work during tenure

### TEACHING ASSISTANT

[Aug '13 – Dec '13]

- Acted as a guide for 52 first year students for the course '**Introduction to Calculus**'
- Conducted and supervised mock quizzes and help sessions for weaker students

## SCHOLASTIC ACHIEVEMENTS

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- Completed **Honors Degree** in Computer Science and Engineering with five extra department course work
- Completed **B.tech thesis** in Natural Language Processing field and secured average grade of 8.33/10
- Secured an **All India Rank of 191** in IIT Joint Entrance Examination 2010 out of nearly ½ million students
- Secured an **All India Rank of 34** in ISAT-2010 conducted by **Indian Institute of Space Technology**
- Placed **24<sup>th</sup>** in **Mathematics Olympiad** 2005 conducted by Association of Mathematics Teachers of India

## EXTRA CURRICULAR ACTIVITIES

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- Worked as **Hostel Dance In-charge** for Performance Arts Festival 2013; **Secured 1<sup>st</sup> position** in dance category
- Avid writer maintaining a blog with **9,000 hits** and published articles in Hostel Magazine
- Worked as **script writer** and **secured 5<sup>th</sup> place** in Video Making Competition in Freshman Competitions 2010
- **Professor's Cube (5x5x5)** solver; Entered Guinness book of world records for being part of 900 members who solved rubix cube in 30 minutes

## SKILL SET

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**Languages** : Proficient in C/C++; Experienced in Java, PLT Scheme, SWI Prolog, Action Script 3.0

**Web and Databases** : HTML, CSS, PHP, Java Script , JDBC, MySQL

**Development Tools** : Android SDK, Android Source Development, Unity, OpenGL, OMNET++, Game maker