

Siddhartha Gunti

Computer Science and Engineering
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

GOLDMAN SACHS PVT LTD, INDIA
Analyst

[Jun' 14 – present]

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

[Feb' 13 – Feb' 14]

- Led the development of UI and animation effects in the games integrating with design department
- Part of the team which was successful in publishing a popular game on android platform and also contributed to its timely upgrades and bug fixes

SAMSUNG ENGINEERING LABS, NOIDA, INDIA

[May' 13 – Jul' 13]

Software Engineering Intern - Got pre-placement offer Android In-Call Data Application and Framework Prototype

- Developed a **conversation data coupling feature** for smart phones to enhance the calling experience
- Android Application Development
 - Developed **Dialler application** for providing Samsung devices a canvas to save data during a conversation
 - Developed **Call Logs application** for displaying compiled conversation data of log entries on a timeline
- Android Source Development
 - Created a modified version of **Android Jelly bean** OS which allows applications access to conversation data
 - Built the capability of extending the frameworks for integration into various applications such as Calendar

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 analyse 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
- Received **critical acclaim** for formulation of reliability metrics

PUBLICATIONS

"Do not do processing, when you can look up: Towards a Discrimination Net for WSD"

[Jan' 14]

- Co-authored and published a long paper in Global WordNet Conference 2014
- Developed "Sense Discrimination Tool" which will automatically add clue words learnt from a corpus
- Laid groundwork for a rule based framework to be called, "Discrimination Net" which will speed up process of deciding correct meaning of a given word

"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>)

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

LEARN SENSE – FINDING CORRECT MEANING AND IMAGE SUGGESTION IN AN ARTICLE

[Jul '13]

Yahoo hackU Project

Java, JSP, Yahoo BOSS API, WordNet API

- Developed a chrome application to suggest image for any word in an article to convey it's meaning
- Led the four member team and designed **AI algorithms** to find topic of article and meanings of the words in it

VIRTUAL MEMORY MANAGEMENT | Operating Systems Course Project (Used: C)

[Feb' 13 – Apr' 13]

- Developed Virtual Memory Management module for **OS/161**, simplified operating system
- Handled **swap space management**, page faults and page replacement
- Integrated the virtual memory code with the existing code base of the OS/161 in a modular way

LANGUAGE PROCESSOR | Compilers Course Project (Used: Yacc, Lex, C++)

[Feb' 13 – Apr' 13]

- Developed a **compiler** for restricted C programs
- The parser and interpreter produce executable code for dumps produced by gcc compiler

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
- **Artificial Intelligence** : Gave a seminar on 'Artificial Humor recognition and generation'
- **Spell Checker** : Developed an application which suggests correct words for commonly misspelt words
- **Battle Tanks Game** : Developed a two player strategy game similar to Pocket Tanks in C++
- **Prince Game** : Developed an interactive shooting game for robotics academy as an in-semester intern
- **Torrenter** : Developed a client server system to aid in fast downloading of files in chunks using JAVA
- **Human body modelling** : modelled a minimalist human body with all joints and motion using open GL
- **Operating Systems** : Developed Unix-like shell in C with many bash features; Demonstrated forking and inter process communication

POSITIONS OF RESPONSIBILITY

DANCE HEAD FOR PERFORMING ARTS FESTIVAL 2014

[Feb '14 – Mar' 14]

- Led the dance team and choreographed dance performances for the festival
- Awarded PAF special mention for the outstanding performance

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

HOSTEL MUSIC AND DANCE SECRETARY

[Jul' 11 –Jul' 12]

- Choreographed and supported a team of 25 members for institute dance championship (Gyrations 2011)
- Played a pivotal role in securing **3rd position** during inter hostel music championship (Goonj 2012)
- Awarded Hostel **Special Mention** for the exemplary work during tenure

SCHOLASTIC ACHIEVEMENTS

- 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 **24th** in **Mathematics Olympiad** 2005 conducted by Association of Mathematics Teachers of India
- Secured **91st** Rank in National Science Talent Search Examination, NSTSE 2009
- 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

EXTRA CURRICULAR ACTIVITIES

- Awarded **Passing-out Color** for contribution to hostel dance scenario for four years throughout in the institute
- Worked as **Hostel Dance In-charge** for Performance Arts Festival 2013; **Secured 1st position** in dance category
- **Choreographed** performances' and trained hostel team for Institute Dance competitions 2012
- Avid writer maintaining a blog with **9,000 hits** and published articles in Hostel Magazine
- Worked as **script writer** and **secured 5th 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

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