



SHIKHAR PALIWAL
Bachelor of Technology
Computer Science and Engineering
Indian Institute of Technology, Bombay

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EDUCATIONAL QUALIFICATIONS

Examination	University	Institute	Year	CPI/%
Graduation	IIT Bombay	IIT Bombay	2013	8.23
Intermediate/+2	CBSE	St. John's Senior Secondary School	2009	88.6
Matriculation	CBSE	S.D. Jain Modern School	2007	94.6

SCHOLASTIC ACHIEVEMENTS

- **All India Rank 86** in IIT Joint Entrance Examination-2009 among nearly 400,000 students
- **All India Rank 33** in 11th National Science Olympiad-2009 by Science Olympiad Foundation
- **Certificate of Merit** for being among top 0.1% in Mathematics (AISSE-2007)
- **1st position** in STSE-2005 organised by Vivid Ventures education and charitable trust

INTERNSHIPS

QUERY ROUTER | CLARITICS INC.

Nov-Dec 2011

Guide: Sanjath S. (Head, Engineering), California, USA

- Developed a **web-servicer** to efficiently route a query from UI to MySQL or Google BigQuery
- Extended the analytics tool to print or export a chart to CSV/JPG. This feature was developed through Highcharts Javascript library

SOCIAL GAMING ANALYTICS | CLARITICS INC.

May-July 2011

Guide: Jay Bala (CTO), Mumbai, India

- Designed an **API layer for iOS** based games and applications which facilitates flow of gaming data from users to analysts in form of JSON Strings
- Implemented **Data Buffering** using multi row capabilities at the backend which allows the API to store data locally and function asynchronously without interfering with the UI

DATA FINDER | DEUTSCHE BANK

May-July 2012

Guide: Rajesh Tolani (Head, Equities), CIB Centre, Mumbai, India

- Streamlined and simplified the process of fetching large time-homogenized data for quantitative analysis, back-testing and modelling
- Developed a Matlab utility presently being used by **3 research and sales teams**
- Studied the correlation between financial asset pairs and analysed lead-lag relationship between them
- Reduced the cost of query for **equities by 30%** and **Forex by 40%** using KDB technology

KEY ACADEMIC PROJECTS

Academics Today | Database Management

Autumn 2011

Prof. Sudarshan S., Institute Chair Professor, IIT Bombay

- Designed and developed a social networking utility to promote academic interests in an institution
- Formulated **Course Recommendation strategy** based on the ratings/comments provided by students
- Implemented dynamic UI, document uploading interface, discussion threads and a feedback system

Finger-print Recognition | Programming Languages

Autumn 2009

Prof. Deepak B. Phatak, Subrao M Nilekani Chair Professor, IIT Bombay

- Conceptualized automated fingerprint matching method for use in verification, registration and attendance
- Implemented Binarization of grayscale image, Thinning algorithm to obtain Thinned Ridge Map and validation in pre-processed fingerprint image

Android Controlled Drawing Bot (Drawoid) | Embedded Systems

Spring 2012

Prof. Kavi Arya, Associate Professor, IIT Bombay

- Programmed a robot to efficiently replicate a user-defined figure at a larger scale
- Facilitated user-robot interaction through android platform via bluetooth communication

Amusement Park Simulation | Data Structures

Autumn 2010

Prof. Om Damani, Associate Professor, IIT Bombay

- Developed a turn-based game on simulation of amusement park management
- Employed probabilistic models and used real life parameters for evolution of the game world

Virtual Memory Handler | Operating Systems

Autumn 2011

Prof. D M Dhamdhare Operating Systems

- Built a virtual memory handler in the given operating system and used it to optimize the usage of RAM of the system
- Implemented cache, swap space, page tables with indexing for speeding up the lookup process

OTHER PROJECTS

- **Analytweets** – Developed an application (within **36 hrs**) which provides real-time comparison of multiple keywords and its demographic statistics based on twitter feeds
- **Artificial Intelligence** – Presented a seminar on Gödel-Escher-Bach and the Incompleteness Theorem
- **Functional Programming** - Developed a real-time arcade game employing slick collision detection technique
- Implemented a partial Compiler for C language using lex and yacc

TECHNICAL SKILLS

Programming Language: C, C++, Java, Perl, MATLAB, Bash, Scheme, VBA

Web Development: HTML, CSS, PHP, Javascript, JAVA Servlets

Databases: MySQL, Oracle, JDBC

EXTRA CURRICULAR ACTIVITIES

POSTIONS OF RESPONSIBILITY

Cultural Councillor

(2011-12)

Led a team of 9 secretaries to carry out all the Cultural Affairs of Hostel 9 at the institute level

- Managed a shoestring budget of **INR 100,000** to conduct all the events

Initiatives

- Revitalized the first self sustained hostel festival '*9tanki*' spanning over two days
- Formulated **Cumulative Secretary Evaluation** to measure the performance of subordinates

Hostel Dramatics Secretary

(2010-11)

Elected member of 3-tier Hostel Council to manage dramatics events of Hostel 9

- Steered hostel to **1st position** in Main Dram GC for the **first time** in history of hostel 9

AWARDS

Organizational Passing out color

(2013)

Cultural Citation

(2013)

Technical Special Mention

(2011-12)

PAF Citation

(2013)

Sports Passing out color

(2013)

Cultural Special Mention

(2011-12)

PAF Special Mention

(2011)