Ramesh Dilip Gaikwad
Computer Science & Engineering
Indian Institute of Technology Bombay

13305R011
M.Tech.
Male
DOB: 11/04/1990

Examination	University	Institute	Year	CPI / %
Post Graduation	IIT Bombay	IIT Bombay	2016	8.83
Undergraduate Specialization: Information Technology				
Graduation	Shivaji University,Kolhapur	Government College of Engineering,Karad	2011	73.73
Intermediate/+2	CBSE, New Delhi	JNV Palus	2007	91.20
Matriculation	CBSE, New Delhi	JNV Palus	2005	89.40

Achievements & Awards

- Secured **99.80 percentile** in GATE examination — *2013*
- Stood **2nd in University Merit List** of IT Departments, Shivaji University, Kolhapur — *2011*
- **Best Outgoing (Overall) Student** award at Govt. College of Engineering Karad — *2011*
- Awarded **Shivaji University Merit Scholarship** for meritorious performance in F.E. examination — *2008*

M.Tech. Project

- **Scalability Study and Performance Optimizations of Bodhitree**
  (M.Tech. Project, under the guidance of Prof. Kameshwari Chebrolu) — *May'15 - till date*
  - Bodhitree is a Learning Management System for conducting flipped classrooms
  - Scaling Bodhitree by identifying performance bottlenecks, performing load tests, code optimizations and fixing system configuration

M.Tech. Seminar

- **HTML5 WebStorage and its Security**
  (M.Tech. Seminar, under the guidance of Prof. G. Sivakumar) — *Spring '14*
  - Studied HTML5 Webstorage and its various use cases
  - Studied its Vulnerabilities and Countermeasures for them such as Lightweight Integrity Protection

Work Experience

- **Research Assistant in MOOCs IIT Bombay** — *July'13 - till date*
  (Under the guidance of Prof. Deepak B. Phatak)
  - Working on Design and Implementation of **OpenStack Swift S3** for **IITBombayX**
  - **Mentored** a team of four summer interns on the **OpenStack Swift** project
  - Engaged in **quiz content creation** for a course offered on **IITBombayX**
  - **Teaching Assistant** for **T10kT Workshop** under National Mission initiative of IIT Bombay
- **Programmer Analyst, Cognizant Technology Solutions.** — *August'11 - July'13 (23 months)*
  - Responsible for customizations in **Fidessa, an Order Management System** using **shell script**
  - Engaged in development of modules for **Trade processing** in **Calypso System** using **Core Java**

Projects

- **Implementation of Distributed Key Value(KV) Store** — *Engineering a Cloud*
  (Course Project, under the guidance of Prof. Sriram Srinivasan, Spring '14)
  - Implemented a distributed KV store handling large number of concurrent client connections
  - Implemented a standard **Raft Consensus Algorithm** with both Leader Election process and Log replication
- **CUBE, ROLLUP, GROUPING SETS extension to GROUP BY Clause** *(team of 3) Implementation Techniques*
  (Course Project, under the guidance of Prof. S. Sudarshan, Autumn '14) — *for Relational Database Systems*
  - Implemented CUBE, ROLLUP, GROUPING SETS clause in Postgres 9.1
  - Created patch file for Postgres 9.1 with CUBE, ROLLUP, GROUPING SETS extension to GROUP BY

- **Cache Access Based Side Channel Attack on AES**   *Network Security*
  (Research and Development Project, under the guidance of Prof. Bernard Menezes, Spring '14)
  - Analyzed the use of cache as side channel to do attack on Advanced Encryption Standard(AES)
  - Computed the key values used in encryption by exploiting lookup table based implementation of AES.

- **Agree Branch Predictor for gem5 Simulator** *(team of 2)*   *Advanced Computer Architecture*
  (Course Project, under the guidance of Prof. Virendra Singh, Autumn '14)
  - Implemented Agree Branch Predictor for gem5 Simulator
  - Evaluated performance of Agree Branch Predictor against existing branch predictors using benchmarks
- **Understanding network performance in dense WiFi settings** *(team of 4)*   *Mobile Computing*
  (Course Project, under the guidance of Prof. Mythili Vutukuru, Spring '13)
  - Analyzed results from given Wireshark trace
  - Set up topology using NS-3 and tried reconciliation with the real experiment
- **Recognizing users of mobile devices from accelerometer data** *(team of 4)*   *Foundations of Machine Learning*
  (Course Project, under the guidance of Prof. Sunita Sarawagi,Autumn '13)
  - The objective of the contest was to recognize the users of mobile devices from their accelerometer data
  - Trained models using different ML classifiers like Naive Bayes, LDA, logistic ,Least Square and SVM

M.Tech. Courses

Implementation Techniques for RDBMS	Advanced Distributed Computing - Engineering a Cloud
Mobile Computing	Computer Networks
Artificial Intelligence	Foundations of Intelligent and Learning Agents
Foundations of Machine Learning	Network Security and Cryptography II
Advanced Computer Architecture	Design and Implementation of Functional Programming

Technical Skills

- **Programming and Scripting Languages:** C, C++,Java Go, Haskell, Python, Bash,gnuplot
- **Web Technologies:** HTML, PHP, JSP, Servlets
- **Frameworks and Tools:** Django, React.js, Android, Git, Wireshark, TShark,tcpdump, JMeter,Eclipse, LaTeX
- **Databases:** PostgreSQL, MySQL

Certifications

- Completed **Organization Level Certifications** in Banking and Finance Domain: **Equity Derivatives,European Payments, Trade and OMS, IB and Brokerage** at Cognizant Academy   *2013*
- Completed **OCJP 6 Certification** and **C++ Certification**   *2012 and 2009*

Positions of Responsibility

- **CSE Department Sports Secretary** at Sports Council, IIT Bombay   *2014 - 15*
  - Ensured active participation in PG Sports from CSE dept and achieved 4th position among 22 PG depts
  - Organized treks and sports activities
  - Organized KreSIT Premier League for PG students of CSE dept
- **Teaching Assistant** for **Cyber Security Workshop** and **CUDA workshop** at IIT Bombay   *2014*
- **Deputy Group Leader** of the group of 29 people in **Trek to Sandakphu** organized by **YHAI**   *2014*
- **Training and Placement Co-ordinator** in GCE,Karad   *2010 - 11*
- **Student Co-ordinator** of **BITZ**, a state level technical symposium in **GCE,Karad**   *Sept'2010*
- **Member of Cultural Committee** at Govt.College of Engineering, Karad   *Mar'2010*

Extra-Curricular Activities

- Completed **Yogathon-108 Suryanamaskar Challenge** on Yoga Day at IIT Bombay   *Jun'2015*
- Awarded **Sports Special Mention** for exemplary performance in sports at **IIT Bombay**   *Apr'2015*
- **Won Silver** medal in **Kho-Kho** in **Spardha**, a national level Sports Competition held at **IIT-BHU** *Nov'2014*
- Won several Sports events in **PG Sports championship** at IIT Bombay   *2013 - 15*
- **Winner** at **Conundrum** in Transition Competition at **Cognizant Technology Solutions**   *2010*
- **Winner** at **Coding Competitions** at **AIT,Vita, YMIoM,Karad, GCE,Karad**   *2009 - 10*

Hobbies

- Playing Kho-Kho, Carrom,Football • Yoga,Cycling and Trekking • Reading novels, Writing diary
- Watching TV Series • Volunteering in Social Activities