Sushant Mahajan
Computer Science & Engineering
Indian Institute of Technology, Bombay

133059007
M.Tech.
Male
DOB: 28 Nov 1988

Examination	University	Institute	Year	CPI/%
Post Graduation Undergraduate Specialization: CSE	IIT Bombay	IIT Bombay	2016	9.08
Graduation	JIIT(Deemed)	JIIT, Noida	2011	7.7
Intermediate/+2	CISCE	St. Joseph's Academy, Dehradun	2006	92.5%
Matriculation	CICSE	St. Joseph's Academy, Dehradun	2004	89%

Awards and Achievements

- Secured rank of **440/224160** in **GATE 2013**.
- Worked for **CSC India Pvt. Ltd., Noida** for 2 years.
- **Oracle® Certified Professional** JAVA SE 6 Programmer. Cleared OCP-JP 6, 2014 with 90%.
- **Microsoft® Specialist**: Programming in HTML5 with JavaScript and CSS3. Cleared the certification with 76%.
- Secured **6/150** in college's annual computer science conference **IC3** for the project **Voice controlled obstacle detector**.
- Participated in **ACM** Kanpur, and received certificate of achievement.
- 1st in **C++** programming contest in college's annual fest JIVE 2009.

Fields of Interest

Cryptography, Cloud computing, Software Architecture

Industry Experience

Worked on a release based project in Healthcare domain for a Denmark based client. The software is used by clinicians at hospitals (healthcare is completely under government control in Denmark, hence all hospitals use it). The project is used to document and co-ordinate all activities related to the treatment of a patient. I worked on 3 external and 1 internal modules of the project.

- **Module 1:** Enables **creation, saving and editing of RTF text** in admin application and provide the API for the usage of the text in the main client module.
  Responsibilities: Technical design, implementation, testing.
- **Module 2:** Did work relating to extendability of the module by changing the core design patterns.
  Responsibilities: Technical design, POC for design patterns, implementation, testing.
- **Module 3:** Extended list based design to include working with multiple items. Extension of module 2.
  Responsibilities: Implementation, testing.
- **Module 4-Internal:** This work was aimed at reducing the time required for preparing a new Environment, so that it may run the application and JUnit test cases, from a few weeks to a few hours. It helps a developer/tester to load appropriate data required into the DB. This data includes terminology codes, constants, ids, names, profile options and even XML template files. It can be compared to a class loader in JAVA.
  Responsibilities: Create user stories, Analysis of codes, implementation, review, documentation, testing.

Technologies/Tools: JAVA SE-6(Core), Swing, XML, Oracle, HTB DB Framework, Design Patterns, SONAR Quality tool, UISpec4J UI testing tool, QAPlug source code quality, SVN.

Post Graduate Research/Projects

Homomorphic Cryptography with applications in OR - *M.Tech. Thesis* [Autumn 2015 - present]
Guide: Prof. Bernard Menezes

- Goal: To implement a solution which enables PKE based evaluation of functions on encrypted text such that the result of the decryption gives the correct result. This has wide applications in machine learning and image processing. Our application is to predict the inventory needs based on encrypted past data.

Homomorphic Cryptography - *M.Tech. Seminar* [Spring 2014]
Guide: Prof. Bernard Menezes

- Goal: Survey various techniques that allow homomorphic encryption of data fully as well as partially. The relative efficacy of the techniques and the practicality of the implementation was also researched.

Cloud based memcache clone - *Course Project* [Spring 2014]
Guide: Prof. Sriram Srinivasan

- Goal: The memcache supports basic atomic instructions like set, get, cas for key value pairs. 5 servers maintain a replicated memcache table. The servers are cemented together with a RAFT based consensus algorithm.
- Technologies/Tools: Google go, git, lite IDE

QT based SpecRTL visualizer - *Course Project* [Spring 2013]
Guide: Prof. Sriram Srinivasan

- Goal: SpecRTL is a language for machine descriptions. Although easy to write it is very difficult to visualize the structures. We wrote a Qt based tool which takes as input the specRTL code and produces a tree based graphic output.
- Technologies/Tools: C/C++, Qt developer kit, specRTL

RA Work - System Administrator

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