

✚ Work Experience, Technology Analyst & Software Engineer at JP Morgan Chase (2015-2019)

- Wrote code to automate data flow, regulatory report generation & submission to financial regulators
- Carried out every phase of SDLC: SBE (Spec by Example)>Design>Dev>SIT>UAT>Prod & Monitor.
- Collaborated with global teams of business users, compliance, central bank & regulator representatives from: India (SEBI, RBI), Japan (BoJ), Singapore (MAS), USA (SEC), UK (BoE)
- Code consumed data from various upstream systems across diverse financial products of Capital (Stocks & Bonds) & Commodity Markets, Derivatives Markets, Futures & Forwards, Forex, Swaps
- Made regular enhancements in existing frameworks to support new functionality
- Was actively involved & contributed significantly in tech forums (especially blockchain)
- Force for Good (JPMC's Social welfare program): Developed software for Pratham NGO to manage its education centres for underprivileged children & gain valuable insights using Analytics & Business Intelligence. We migrated existing Salesforce OLTP DB to Azure using Pentaho ETL. We developed auto-updating multidimensional OLAP cube reports & charts in PowerBI to gain insights & support decision making. Users could perform functions on them such as aggregation, slicing, dicing, Roll Up, drill down, Pivoting etc.

✚ Education

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|-------------------------------------|-------------------|--------------|---------|
| Master of Science, Computer Science | USC | 2019-Present | Ongoing |
| Bachelors in Computer Engineering | Mumbai University | 2012-2015 | 75.17% |
| Diploma in Computer Technology | MSBTE | 2009-2012 | 84.24% |
| Matriculation | ICSE | 2009 | 91.14% |

✚ 394, 000 (& growing) number of people reached on Stack Overflow:

<https://stackoverflow.com/users/1091784/ritesht93>

✚ Technical Skills (Software Development & Embedded Hobbyist)

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|---|---|--|------------------------------------|
| • Java (EE & SE), Spring MVC, Hibernate ORM | • SCM, Build Tools: Jenkins, Maven, Git, TDD Fittesse | • Web Tech: HTML, jQuery, Bootstrap, JS, PHP, LAMP, selenium | • Lua, C, Arduino, NodeMCU, AVR |
| • Python & Raspberry Pi | • DB: MySQL, MongoDB, Oracle | • Pentaho ETL | • Android App Development |

✚ Published Paper (April-2014) [“Emergence in Web-based Botnets \(Targeting Application Layer\)”](#), International Journal of Engineering & Research (IJERT, ESRSA Publications) Journal Vol 3, Issue 4. ISSN: 2278-0181

✚ Achievements

- JP Morgan Chase Tech Savvy award (2015)
- Runner up at JPMC Code for Good Hackathon (12, 13 July, 2014)
- Ranked 1st in all 3 years of diploma in Computer Technology branch
- Computer Society of India (CSI) council member designations [Managed & conducted society events both technical & non-technical, Presented various seminars in collaboration with IIT Mumbai (IIT Bombay) (Python, etc.) & solely under CSI-VESIT]
 - Junior Technical Officer [2012-2013]
 - Senior Technical Officer [2013-2014]

✚ Major Projects Developed

| Sr No | Project Title | Concepts Implemented/ Languages Used | Developed under/for | Duration/Year of development |
|-------|------------------------|---|---------------------|--|
| 1 | RPyPXE Network Booting | ➤ Python on a cluster of Raspberry Pi | Final Year Project | Bachelors in Computer Engineering (2015) |

RPyPXE (Raspberry Pi Python Preboot EXecution Environment Server) = DHCP + TFTP + HTTP server written purely in Python running on a cluster of Raspberry Pi's. A computer boots up with a CPU RESET event then transferring control to BIOS/UEFI which performs POST (Power on Self-Test) & then looks for a bootloader in the defined boot sequence. Usually the computer boots up from hard drive or USB, this project aimed to boot a computer after acquiring files via the Network Interface Card using PXE. This project acquired necessary boot files using HTTP over LAN/Internet or via TFTP.

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|---|---|--|--|--|
| 2 | Experimental DDoS Botnet | ➤ Bot: C#.NET CNC Server: Dynamic DNS, PHP, MySQL, Android App | Seminar Subject in Curriculum | Bachelors in Computer Engineering (2014) |
| Botnet is an army of compromised hosts with background software bots which blindly follow commands by central Command & Control (CNC) Server. My botnet initiated Distributed Denial of Service (DDoS) attack on a victim server using different methods such as PingFlood, TCP SYN Flood etc. | | | | |
| 3 | CSI Cricomania (Cricket Player Auctioning Software) | ➤ Android (Java, XML) ➤ Java (Socket Programming over Wi-Fi) ➤ PHP + MySQL | Computer Society of India | Bachelors in Computer Engineering (2014) |
| A complete package of 5 applications made exclusively for Cricomania event of CSI-VESIT. Components include: • Android App & Server over Wi-Fi to track scores of events played Auction handler (which team bought which player) & who won based on total brand value of players | | | | |
| 4 | Automated Attendance Monitoring System | ➤ Android (Java, XML) ➤ Java Sockets & DB Connection Pooling ➤ PHP + MySQL | Exclusive Scholarship Program | Bachelors in Computer Engineering (2014) |
| Android App that automates the manual paper-based work of taking attendance. Architecture is independent of time table, shifts, etc therefore would be applicable for any university. | | | | |
| 5 | Computer Builder Website | ➤ PHP + MySQL ➤ HTML | Web Engineering Subject in Curriculum | Bachelors in Computer Engineering (2014) |
| A website that provided users a guided tour in selecting their own high-end computer keeping in mind compatibility & performance. | | | | |
| 6 | CSI Experience Android App | ➤ Android (Java, XML) Client Web based Server (RSS XML for notifications) | Computer Society of India | Bachelors in Computer Engineering (2013) |
| CSI-VESIT Society App for its members gave them an opportunity to get to know about the schedule & event descriptions beforehand using RSS based notifications. | | | | |
| 7 | Wireless MCQ Quiz App (Wi-Fi Sockets) | ➤ Android (Java, XML) Client ➤ Java Multithreaded Server (Swing, XML/EXI) | Computer Society of India | Bachelors in Computer Engineering (2013) |
| Earlier without this app, elimination round for events used to be paper based & results would come out the next day after manually checking the papers. | | | | |
| 8 | Sentiment Analysis using Opinion Mining. | ➤ ASP.NET (C#), SQL Server (Supervised Machine Learning) | Internship (Sara Software Labs) | Diploma Year 3 Vacations (2012) |
| <ul style="list-style-type: none"> 8 movie review sites = 4 Training Dataset + 4 Test Dataset. Web App crawled (fixed depth) the training dataset, & for each movie, its name, details, review & user comments were scraped out using Html Agility Pack's DOM based Library. These were tokenized & matched against a DB of words (adjectives majorly) to produce scores (+ve, -ve & neutral). Score obtained after scraping test dataset & scores calculated previously using training data set were averaged to get final rating out of 5. | | | | |
| 9 | RecordShot Audio & Screen Recorder | ➤ Android (Java, XML) ➤ [Rooted & Non-Rooted] | Industrial Project Development Subject in Curriculum | Diploma Comp Tech Semester 6 (2012) = Final Year Project |
| Rooted version captures frame buffer which needs root/superuser permissions (Linux-based Android OS). Non-rooted version loads the background service off the PC to mobile via an automated BASH/BATCH/PS script. | | | | |
| 10 | Xquisite (Game Zone) | ➤ C++ (BGI) | OOP Subject in Curriculum | Diploma Comp Tech Semester 3 (2010) |
| A simple collection of interactive GUI mouse based games (Bingo, Xn0, Bingo, Pac man) | | | | |

✚ Extra-curricular

- Technical Paper Presentation (Mobile networks) during Diploma in Tech-Fest Anvesh (2012)
- Secured 1st place in Tech-it-away Tech Quiz & Bluff-master organized by IEEE (2012)