# Ritesh Talreja

## University of Southern California (Master of Science, Computer Science, Networking)

August 2019 - Present

Coursework: Algorithm Design, Advanced OS, Foundations of Artificial Intelligence, Applied Machine Learning for Games

University of Mumbai (Bachelor of Engineering, Computer Engineering)

May 2012 - May 2015

Coursework: Data Structures, Database Management System, Advanced Microprocessor, Data Warehouse and Mining

Maharashtra State Board of Technical Education (Diploma in Computer Technology)

May 2009 - May 2012

Coursework: Introduction to Programming in C, Object Oriented Programming using Java, Data Structures and Files

## TECHNICAL SKILLS (SOFTWARE DEVELOPMENT and EMBEDDED HOBBYIST)

Programming Languages: Python, Java (EE and SE), JavaScript, Unix Shell Scripting, C, Lua, PHP, HTML

Platforms: Linux, Raspberry Pi, Arduino/AVR, Espressif, TCP/IP Protocol Suite

Tools: Git, Jenkins, Maven, Pentaho ETL, Eclipse, NetBeans, IntelliJ, Selenium

**Frameworks:** Spring MVC, Hibernate ORM, NodeJS, NodeMCU, Android SDK, jQuery, Bootstrap, TDD Fitnesse, XAMPP, MEAN, Flutter **Databases:** MySQL, MongoDB, Oracle, PostgreSQL (and PostGIS)

#### **WORK EXPERIENCE**

## Parallel Agile, Los Angeles – USC Directed Research Full Stack Scala & MEAN Software Developer

January 2020 - Present

Automated Code generation (writing code to generate code) for: REST APIs, Multiple (8) RDBMS using typeORM, Client-side UI for multiple platforms (Web, Android and iOS), Automated tests [MVC CASE Tool]

## Unify IoT Technologies, Mumbai - Full Stack and Embedded Software Engineer

June 2018 - May2019

- Researched and implemented PoC in Blockchain for IoT to eliminate cloud middleman using IPFS
- Developed Smart WiFi Socket (ESP8266 μC, NodeMCU Lua F/W) mDNS discoverable, Timers, Calendar, Fixed/Travel Mode
- Developed <u>Smart Lid: Water Tank Level Switch to auto-turn on/off pump (AVR, Ultrasonic sensor and HC06 Bluetooth)</u>
- Developed corresponding Android and Cloud GAE Python Flask REST API for remote monitoring and control

#### JP Morgan Chase & Co., Mumbai

July 2015 – May 2018

**Full Stack Software Engineer** 

June 2017 - May 2018

**Technology Analyst (Software Development and Production Support)** 

CSI Experience Android App (Android SDK, RSS)

Wireless MCQ Quiz Android App (Android SDK, Java: Sockets, Swing)

RecordShot Audio and Screen Recorder (Android SDK, Shell scripting)

Sentiment Analysis using Opinion Mining (Supervised Machine Learning, ASP.NET (C#), MS-SQL)

July 2015 - June 2017

- Worked primarily in Corporate & Investment Banking Back Office, GSO (Global Service Operations) Tech, Regulatory Reporting
- Implemented software to automate data flow, regulatory report generation and submission to financial regulators
- Carried out every phase of SDLC: SBE (Spec by Example)>Design>Dev>SIT>UAT>Prod and Monitor
- Collaborated with global teams of business users, compliance, central bank and regulator representatives
- Enhanced existing frameworks with new features and was actively involved in forums (especially blockchain)

### Volunteered for Force for Good Team (JPMC's Social welfare program for Pratham NGO)

July 2015 – July 2016

2013

2013

2012

2012

- Migrated Salesforce OLTP DB to Azure using Pentaho ETL. Implemented multidimensional OLAP cube reports in PowerBI to manage client's 20+ nationwide education centres for underprivileged children and gain valuable insights using Analytics.
- Implemented following OLAP cube functions: aggregation, slicing, dicing, roll-up, drill down, pivoting etc

## **HONORS and AWARDS**

Hortoria dila Avvalia	
\$5000 Scholarship by USC Viterbi	2020
JP Morgan Chase Tech Savvy Award	2015
Ranked 1st in ALL 3 years of Diploma in Computer Technology branch	2009 – 2012
EXTRA-CURRICULAR	
Reached 400,000 (and growing) number of people on <u>StackOverflow</u>	Ongoing
• Served as Junior and Senior Technical Council Officer @ Computer Society of India (CSI) 2012 – 2014	
Managed and conducted tech and non-tech society events. Presented various seminars in	
collab with IIT Bombay and solely under CSI-VESIT. Secured 1st in Tech-It-Away Quiz (IEEE member).	
Secured Runner up Position @ JPMC Code for Good Hackathon	12,13 July 2014
PROJECTS and PUBLICATIONS	
PXE N/W Boot Server (Python Raspberry Pi Cluster)	2015
Published Paper "Emergence in Web-based Botnets (Targeting Application Layer)", IJERT	April 2014
Experimental DDoS Botnet (C#, DDNS, Android SDK, PHP, MySQL)	2014
<u>Cricomania [ Cricket Player Auction Tracking]</u> (Android SDK, Java: Sockets, Swing, PHP, MySQL)	2014
Automated Attendance Monitoring System (Android SDK, Java: Sockets, Swing, PHP, MySQL)	2014