

# Ritesh Talreja

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## EDUCATION

**University of Southern California (Master of Science, Computer Science + Networking)** Aug 2019—Present

Coursework: Algorithm Design, Advanced OS, Web Technologies, Computer Networking & Communications, Security Systems

**University of Mumbai (Bachelor of Engineering, Computer Engineering)** May 2012—May 2015

Coursework: OOP (Java), Data Structures, Systems Engineering & Compiler Construction, Data Warehouse & Mining, C Programming

## TECHNICAL SKILLS

**Languages:** Python, Java (EE and SE), JavaScript, TypeScript, SQL, Unix Shell Scripting, HTML, CSS, C  
**Tools:** Kubernetes, Docker, Git, Selenium, Wireshark, xFittesse TDD, Jenkins, Pentaho ETL, Eclipse, IntelliJ  
**Frameworks:** MEAN, MERN, Spring, Hibernate, NodeMCU, Android SDK, jQuery, Bootstrap, LAMP  
**Platforms:** Google Cloud, Linux, TCP/IP Protocol Suite, Raspberry Pi, Arduino/AVR, Espressif  
**Databases:** MySQL, MongoDB, Oracle, PostgreSQL (and PostGIS Spatial)

## WORK EXPERIENCE

**Nokia, Mountain View, CA** May 2021—Present

*SDN and Software Automation Engineer Co-op, Data Center Network Infrastructure* (Python, Kubernetes, Docker, React, GPT-3)

- Developed custom control loop to maintain desired state of K8s cluster with multiple VMs and SR-Linux Routers. In addition, developed a web portal with in-browser console and drag drop functionality to configure and auto-deploy a given Clos topology.
- Contributed towards K8s YAML generation with GPT-3's NLP for predefined scenarios of Telco & Web-scale DC cloud topologies.

**University of Southern California, LA, CA** May 2020—Sep 2021

*CSCI 585 Database Systems Lead Course Producer* (DBMS + PostGIS)

**Parallel Agile Inc., LA, CA** Jan 2020—Sep 2021

*USC Directed Research Full Stack Software Developer* (Scala, Flutter, MERN (TS), MEAN(TS), React-Native)

- Automated Code generation: writing code to generate code from UML diagrams for: REST APIs, Multiple SQL & NoSQL DBs with ORMs and multiple client-side UI **enabling parallel development and slashing full-stack development time and effort by >50%**

**Unify IoT Technologies, Mumbai** Jun 2018—May 2019

*Full Stack, Cloud & IoT Software Engineer* (Google Cloud, NodeMCU Lua, AVR, Android SDK, IPFS)

- Researched and implemented Blockchain PoC for IoT to eliminate cloud middleman using IPFS saving recurring cloud costs.
- Developed [Smart WiFi Socket](#) and [Smart Lid](#) (Water Tank Level Monitor) with cloud-based remote monitoring and control.

**JP Morgan Chase & Co., Mumbai** Jul 2015—May 2018

*Technology Analyst to Full Stack Software Engineer* (Java EE: Spring, Hibernate, Oracle, Autosys, Pentaho ETL, xFittesse TDD)

- Automated data flow from many front office market-facing systems for scheduled report generation and submission to financial regulators freeing up financial analyst's manual MS-Excel work of report building.**
- Carried out every phase of SDLC in collaboration with global teams of business, compliance, central banks and regulators.

**Volunteered for Force for Good Team (JPMC's Social welfare program for Pratham NGO)** Jul 2015—Jul 2016

- Migrated Salesforce OLTP DB to Azure SQL DB using Pentaho ETL implementing PowerBI multidimensional OLAP cube reports on top of it. Reports helped higher management to govern 20+ nationwide education centres for underprivileged children and gain valuable insights using Analytics and OLAP cube functions such as aggregation, slicing/dicing, roll-up, drill-down etc.

## AWARDS

**\$5000 [Scholarship](#) by USC Viterbi** Jan 2020

**JP Morgan Chase Tech Savvy [Award](#)** Jul 2015

**[Ranked 1st](#) in ALL 3 years of Diploma in Computer Technology branch** May 2009—May 2012

## LEADERSHIP AND INVOLVEMENT

**Reached HALF million (and growing) number of people on [StackOverflow](#)** Ongoing

**Served as Junior and Senior Technical Council Officer @ Computer Society of India (CSI)** May 2012—May 2014

**Secured Runner up Position @ JPMC Code for Good Hackathon** Jul 2014

## PROJECTS

**[Stock Search, Watch listing and Portfolio](#)** (Angular, Express, Google App Engine) Oct 2020

**[PXE N/W Boot Server](#)** (Python Raspberry Pi Cluster) Apr 2015

**Published Paper "[Emergence in Web-based Botnets \(Targeting Application Layer\)](#)"**, IJERT Apr 2014

**[Experimental DDoS Botnet](#)** (C#, DDNS, Android SDK, PHP, MySQL) Dec 2014

**[Cricomania \[Cricket Player Auction Tracking\]](#)** (Android SDK, Java: Sockets, Swing, PHP, MySQL) Mar 2014

**[Automated Attendance Monitoring System](#)** (Android SDK, Java: Sockets, Swing, PHP, MySQL) Mar 2014

**[CSI Experience Android App](#)** (Android SDK, RSS) Dec 2013

**[Wireless MCQ Quiz Android App](#)** (Android SDK, Java: Sockets, Swing) Apr 2013

**[Sentiment Analysis using Opinion Mining](#)** (Supervised Machine Learning, ASP.NET (C#), MS-SQL) Jun 2012

**[RecordShot Audio and Screen Recorder](#)** (Android SDK, Shell scripting) Mar 2012