Dhrumil **Joshi**

SOFTWARE ENGINEER II

https://dhrumiljoshi96.github.io/portfolio/

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Education

Sardar Vallabhbhai National Institute of Technology (NIT Surat) *Surat, Gujarat, India*
B.TECH. IN COMPUTER ENGINEERING *Jul. 2015 - May. 2019*
- 8.54 / 10 CGPA

St. Kabir School *Vadodara, Gujarat, India*
XII SCIENCE (PCM) *Jul. 2014 - Apr. 2015*
- Science Theory Percentile : 99.48% (Gold Medalist in School)

Professional Experience

J.P. Morgan Chase & Co. *Mumbai, India*
SOFTWARE ENGINEER II | WEALTH MANAGEMENT TECHNOLOGY *Jan. 2021 - Present*
- Currently working on integrating mission-critical microservices through the Saga pattern to ensure data consistency in a loosely coupled distributed system
- Involved in the migration of extensive object data in the blob format from the relational database to Amazon S3 Object Storage
- Strengthened and enhanced the support model of the team by implementing a micro service that runs Cypress Automation Test scripts on every micro service of the stack, mines splunk for error logs , collects other useful metrics for application monitoring, creating a dependency graph to detect cyclic dependencies
- The support service generates a report of the above calculated statistics and sends an automated mail at a scheduled time to the support team every day for quick action and troubleshooting

J.P. Morgan Chase & Co. *Mumbai, Maharashtra, India*
SOFTWARE ENGINEER I | WEALTH MANAGEMENT TECHNOLOGY *Jul. 2019 - Dec. 2020*
- Involved in major architectural redesign making a shift from legacy infrastructure (with Monolithic Centralized and Physical Server-based design) to Event-Driven Microservice-based Distributed, asynchronous and cloud-hosted Infrastructure
- Redesigned and developed Data Models, APIs and services of applications to fit the new architecture
- Wrote data migration tasks to migrate data from Ms SQL DB to Oracle DB with major Schema and Model changes
- Implemented a common plugin on top of the Apache Kafka Framework which was injected into all the data streaming microservices that performed data replication from Oracle to Elasticsearch via eventing
- Created dashboards using Grafana to leverage metrics from various data sources for analytics of attributes contributing to performance

J.P. Morgan Chase & Co. *Mumbai, India*
SOFTWARE DEVELOPER - INTERN | ASSET MANAGEMENT TECHNOLOGY *May. 2018 - Jul 2018*
- Planned, implemented , developed and deployed a production ready Health Tracker Web App that monitors various metrics of other business critical applications , servers and segregates them on to a dashboard for robust observation
- Implemented functionalities such as showing queue depth of IBM messaging queue and having an alerting mechanism based on threshold depth, mining Splunk logs for Errors and Exceptions based on threshold, integration with Dynatrace to show application performance based on configurable metrics

Projects

Augmented Reality (AR) Shop
CAPSTONE PROJECT *Jun. 2018 - Mar. 2019*
- The AR shop is an interactive online shopping application where users can actually augment the live environment with the virtual object of the item they wish to purchase. Hence, enabling users to make better choices to buy items such as Living Room Sofa as an example.
- It is an android application which makes use of "Augmented Reality", blurring the line of distinction between the "Real" and the "Virtual", developed using Unity Game Development Engine in C sharp.

Identification Forgery Detection
PERSONAL PROJECT *June. 2020 - Sept. 2020*
- The Forgery Detection algorithm works on Computer Vision principle. Steps involve uploading an image for detection, change the size, format and shape according to the original image followed by gray-scale conversion. Next would be finding the similarity index, compare the images and check the similarity score to decide tampering/forgery.

Video Recapitulation Bot
PERSONAL PROJECT *Mar. 2017 - June. 2017*
- The Bot is made to condense the transcript/Closed Caption of a video extracted from any platform such as youtube into a comprehensible summary. It uses advanced Natural Language Processing techniques implemented in Python.

Skills

Programming	Java, Python, C/C++, C#, JavaScript/TypeScript, HTML, R, SQL, NoSQL
Database/Query	MySQL, MsSQL, PostgreSQL, Oracle, Elasticsearch, MongoDB, Amazon Redshift, MariaDB ColumnStore, Amazon S3
Cloud	AWS, Pivotal Cloud Foundry, OpenStack, DigitalOcean
Tools/Technologies	Spring Boot, Kafka, Spring Cloud, Pivotal Cloud Foundry, AWS, Spring WebFlux, Tensorflow, Flask, Ionic, Splunk, Jenkins, Spring Cloud Netflix, Spring Cloud Data Flow, Postman, Cypress, UiPath, JMeter, Intellij, PyCharm
Industry Knowledge	Distributed & Parallel Systems, Microservice Architecture, SAGA Patterns, OOPs, Reactive Programming, Functional Programming, Agile Methodologies, CI/CD, Problem Solving, Domain Driven Design, Data Modelling, Load Balancing Algorithms, CDNs, WebSocket Programming, NLP, CQRS Patterns, Distributed Caching

Volunteering

THE HUMSAFAR TRUST (NGO - HUMAN RIGHTS)

Force For Good Initiative program organised by J.P. Morgan Chase & Co.
SOFTWARE DEVELOPER (OCT. 2019 - AUG. 2020)
- Developed a mobile application using Ionic Framework, Spring Boot framework and My-SQL. Leveraged Digital Ocean for cloud hosting.
- Application main features included SOS features with live location tracking and assistance, automatic phone-call/email to the NGO helpline in case of emergency, event management features like allowing users to subscribe to the upcoming events, community feedback collection, and compiling scattered information resources at a single place for users to access anytime
- Provided a user friendly documentation with detailed feature explanation and trouble shooting steps for seamless user experience.

2019-20	**Recognition of passion and commitment to deliver social impact through the power of technology**, J.P. Morgan Chase & Co	*Mumbai, Maharashtra, India*

Honors and Awards

2020	**Circle of Excellence (Above and Beyond) Award**, Asset and Wealth Management Technology Awards	*J.P. Morgan Chase & Co.*
2019	**Gold Medal - Captained the team Spartans**, MMNCT Inter-Year Cricket Tournament	*NIT Surat*
2017	**Silver Medal - Captained the team NIT Surat**, All India Inter-NIT Cricket Tournament	*NIT Rourkela*
2015	**Gold Medal - Secured 1st position in 12th Science (All Streams) and got listed in board toppers list of my school**, Academic Excellence Award	*St. Kabir School*

Seminars and Conferences

Elasticsearch — *J.P. Morgan Chase & Co.*
CONFERENCE — *December 2019 & July 2020*
- Presented R&D work on Elasticsearch effectiveness to fit domain-specific requirements such as read scalability, low latency, etc. and discussed the trade-offs. Elasticsearch was then adopted as primary store for data read purposes by the team.

Software Build Tools — *NIT Surat*
SEMINAR — *Dec. 2018*
- Deep delved into the core concepts used in build tools such as Maven, Ant and Gradle along with their use cases. Documented a simulation of working of those tools at a low level.

Program Committees

2019-21	**Committee Member & Technical Topic Presenter**, Internal knowledge sharing platform	*J.P. Morgan Chase & Co.*
2019-20	**Subject Matter Expert**, Recruitment Team	*J.P. Morgan Chase & Co.*

Extracurricular Activity

Sports Section : NIT Surat — *Surat, India*
SELECTION COMMITTEE MEMBER, CAPTAIN AND PLAYER OF NIT SURAT CRICKET TEAM — *Dec. 2015 - Apr. 2019*
- Started as a player in 2017, led the team in 2018 and 2019 consecutively as well as became a part of the selection committee of the Inter-NIT cricket team for the year 2019