

Pranav Gandhi

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SUMMARY

Software Architect with 13 years of experience in **Capital Market** and **BFSI** Industry. A team player in making better strategic decisions, solving problems, and contributing positively to a value-driven organization

EXPERIENCE

Bank Of America

Sep 2017 – Present

Senior Software Engineer III (Technical Architect/Lead) for II Platform - Team Size: 14

Mumbai, India

- Co-Managed and supervised global development team of fourteen highly skilled developers
- Responsible for end-to-end design and architecture, project delivery, prioritization, modeling solutions, stakeholder management, code quality, training, mentor-ship, and hiring decisions
- Re-architected scheduled batch operations to **event driven asynchronous processing**, that seamlessly supported **20x** increase in loads since 2017
- Decoupled system into light weight **REST** micro-services using **message broker(AMPS)** for easy scaling
- Build self service tool with mattermost integration and dynamic forms in 2018 that helped **reduce time to market by 7 days** along with huge BAU FTE saves for stakeholders - Technology, Quants and Structures.
- Identified cost drivers, optimized market data usage through caching, and **rule based smart alternative sourcing engine** to save **\$350m** in 2019
- Built **OMS** for managing, enrichment, netting and sanity checks on delta hedge orders before routing to trading terminal using eventing, backbone of intraday products boosting AUM **from \$17B (2020) to \$30B+ (2021)**
- Built real-time business process monitoring for monitoring mission critical business events, workflows reducing operational risk and increasing process resiliency in 2021

Nomura Research Institute Financial Technology

Jul 2015 – Aug 2017

Consultant (Lead Software Developer) for Deutsche Bank's Equity Structuring - Team Size: 6

Mumbai, India

- Designed **python-based reporting framework** – decouples content generation, report formatting, and report delivery into reusable configs and supports **charting**, email(jinja), pdf, excel, csv, mail and sftp in an agile environment helping client reporting FTE save of 90%
- Modeled Independent Price Verification framework with configurable **business rule engine** to automate IPV process of validating desk marks with that from independent sources
- Exposed client data using using REST based data services using Spring Boot-based services

Cognizant Technology Solutions

Mar 2013 – July 2015

Consultant (Business Analyst) for Credit Suisse Market Risk - Team Size: 2

Mumbai, India

- Responsible for driving design discussion, confluence, **agile meetings**, **data modeling**, regression testing, requirement analysis and maintenance for Market Risk System (MARS) and Risk Data Store Systems (RDS), and FIDESSA
- **20% reduction in SLA breach** due to technical incidents during generation of APAC/EMEA regulatory risk reports through workflow optimization and re-modeling and helped Increased stability and process resilience

Nation Stock Exchange Of India Infotech

Dec 2009 – Mar 2013

Associate System Analyst (Module Lead) for Derivatives Clearing - Team Size: 5

Mumbai, India

- Responsible for end-to-end development, requirements analysis, vendor management, testing for derivative clearing and settlement system
- Also responsible for **database entity modeling**, **code quality**, oracle query optimization, mentoring and error-free timely delivery in high-pressure, regulator-driven environments with tight deadlines
- Delivered automation projects: Eventing via trigger file, smart log/report archival, search tools, application/server decommissioning and re-architecting workflows generating aggregate 1.2 FTE and \$50k+ yearly dollar saves
- Dealt with processing trades and positions data ranging in 40 crores using C/C++ and Oracle partition tables

KEY PROJECTS

Skynet | Investable Indices Platform | Strategy as an index basket

Python, Tornado, Flask, React, Oracle, AMPS(Message Broker), BDD, TDD, Kibana, ElasticSearch, Agile, CI/CD

- Developed a platform for orchestrating, managing bespoke portfolio or index basket and fully automate its operations - pricing, publication, reconciliations, downstream feeds and reporting
- Optimizes market data utilization by caching and smart alternative sourcing
- Integrates with trading terminal to offer real-time delta hedging, hedge order management, order netting with configurable sanity checks, monitoring, order analytic and business notifications

IPV (Independent Price Verification) | Smart Market Data Analytics, Reconciliation Tool

Matlab, Python Oracle, REST, Agile, CI/CD, Data Modeling

- Rule engine for reconciling desk prices/parameters with corresponding data from independent data providers
- System loads price feeds from various independent sources, allows client-configurable price validation rules, to provide a single point of control and a source of clean, validated prices for the front, middle, and back office

MARS (Market Risk System) & RDS (Risk Data Store) | Regulatory report feeds loading, enrichment

C++, Curl, Oracle, Shell, Python, Agile, CI/CD

- RDS loads various upstream position / risk feeds from various desks and legacy systems in various formats , enriches and standardizes these to standard data store
- MARS is used to schedule, configure, view and signoff various risk reports at desk, instrument and bank level dependent on RDS feeds loading by risk analysts

FOCASS | Derivative Clearing | Automating exchange post-trade operations

C, C++, Java, Pro*C, Oracle, Weblogic, Shell, Geneos, SOAP, Waterfall, Agile, CI/CD

- Strategic distributed client service application for clearing and settlement of derivative products at NSE
- Application was responsible for entire clearing workflow - computation of settlement price for each underlying, netting of positions, computation of applicable margins, and trading terminal reports
- Based on clearing net payin payout transactions were generated and cash settled from clearing/trading member banks accounts and notifications are generated

TECHNICAL SKILLS

Languages: Python, C/C++, Java (Average), SQL, JS (Beginner), Matlab (Beginner), R (Beginner), GO (Beginner)

Architecture/Style: TOGAF (aspirant), Distributed Systems, Event Driven (EDA), Micro Services, AWS (Beginner), Azure (Beginner), MapReduce, Agile, TDD, DDD

Communication: HTTP/2, JSON, Websockets, FIX, XML, REST

Middleware / Cache: AMPS, Kafka (Beginner), Cassandra (Knowledge), Redis/Memcache (Knowledge)

Database : Neo4j, GraphDB, Oracle, MySql

CI/CD DevOps: Git, Ansible, Jenkins, Artifactory, Kibana, ElasticSearch, JIRA, Confluence, Docker, Kubernetes, mattermost

Web: Tornado, Flask, ReactJs(Beginner), AngularJs (Beginner)

AWARDS & EXTRACURRICULAR

Awards: Received BoFA's flagship Platinum Award year=on-year since 2018-present

AI/ML: Won ML-Based real-life code challenge on recommending stocks to add to inventory for SLB

Code-a-thons: Participated and experimented new areas like Image Recognition and Sentiment Analysis

Volunteering / Teaching: Passionate about teaching math, storytelling, yoga sessions for underprivileged school children's via NGOs like Teach For India, United Ways, Agastya foundation, and others

EDUCATION

Great Learning, Educative, Puralight, O'Reilly, Degreed

Certifications in Machine Learning, System Design, AWS

Online
2017 – Present

Global Association Of Risk Professionals (GARP)

Certified Financial Risk Manager (FRM)

London, UK
2015 – 2016

National Stock Exchange of India (NSE)

Certified National Capital Market Professional

Mumbai, India
2011 – 2012

Dwarkadas J. Sanghvi College of Engineering

Bachelor of Engineering in Computer Science

Mumbai, India
2005 – 2009