

EDUCATION

- **Stony Brook University** New York, U.S.A.
Master of Science in Computer Science (Graduating 2021) *Aug. 2019 – Present*
 - **Courses:** Analysis of Algorithms, Data Science, Natural Language Processing, Theory of Computation
 - **Teaching Assistant:** CSE 214 - Data Structures
- **K.J.Somaiya College of Engineering (University of Mumbai)** Mumbai, India
Bachelor of Engineering in Information Technology; First Class with Distinction (72.9%) *Aug. 2011 – June. 2015*
 - **Courses:** Data Structures and Algorithms, Artificial Intelligence, Discrete Mathematics, Data Warehousing

EXPERIENCE

- **J.P. Morgan Chase & Co.** Mumbai, India
Associate (Senior Application Developer) *Feb 2018 – Aug 2019*
 - **Data Access Control System (DACS) authentication for Live Prices:** Application-wide authentication to ensure legitimate access of live price data. Instrumental in helping the firm avoid any audit issues and reduced subscription costs per trader by 50%.
 - **Trader Analytics:** Statistical and Analytical tools including absolute and percent price variation, market share and standard deviation of Stocks based on historic data to assist traders in making better decisions.
 - **Memory Optimization:** Performance tuning of application memory consumption and (Garbage First) G1 Garbage Collection through careful heap analysis of humongous allocations.
 - **Real-Time Pricing Solution:** Developed a component from scratch which approximates market risk in real-time using live prices and Taylor Series; and publishes the results onto a messaging interface. Built with frameworks such as JBehave, Spring, REST and Gradle, it helped retire a legacy system thus saving \$250k.
- Technology Analyst (Application Developer)* *July 2015 – Jan 2018*
 - **Risk Management System:** Core application used by Traders for visualizing and hedging risk. Implemented a lot of enhancements and workflows including but not limited to :
 1. Optimized the Positions and Trades feeds processing using LMax Disruptor, a low latency queue library.
 2. Process startup time improvement by 50% through the use of concurrency and Spring Annotations.
 - **Market Data Source:** Wrote a library for validating the functionality of an application that publishes market data and reporting results using Java MBeans and Apache POI. Reduced manual effort by 90%, accelerating SDLC.
 - **Shell Scripting and Java SSH:** Bash scripts to streamline the deployment and startup of application modules on servers. A Java-SSH utility to go with it for locally monitoring remote process health.
 - **MongoDB Management:** Set up standalone/replica set instance with dynamic resiliency to ensure business continuity. Proficient in data manipulation, backup/restore through JSON documents or JavaScript.

TECHNICAL SKILLS

- **Languages:** Java, Python, Unix Shell Scripting, SQL, MATLAB
- **Frameworks:** Spring, Spring-Boot, Swagger, Apache POI, Java MBeans, JMS, Pandas, Matplotlib, JBehave
- **CI Tools:** Gradle, Team City, Git, Bitbucket, Ant, Jenkins, YourKit
- **Databases:** Sybase ASE, MongoDB, MySQL

PROJECTS

- **Predict Chess Player Rating (Ongoing):** Predict the Elo ratings of a player from the moves sequence data.
- **Email Template Generator:** Built on the handlebars framework, creates reactive templates to send out email alerts.
- **Machine Learning/NLP:** 'Inverted Index Builder', 'News Article Classifier', 'Products Review Sentiment Analyser', 'Songs Recommender System' and 'Similar Document Clustering System' based on tf-idf and page rank algorithms.
- **Pratham NGO:** A system to keep track of the underprivileged students supported by the NGO. Migrated data from Salesforce to Azure SQL using Pentaho Kettle and developed a Java utility for reporting faulty data.
- **Reliable UDP:** Server-Client Exchange with Checksum validation and re-transmission in case of corrupt data.
- **Physual(Capstone):** Text to scene system to visualize Mechanics problems using NLP, Java 3D and Blender Models.