

# Chirag Jain

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## EDUCATION

### North Carolina State University, Raleigh (Master of Computer Science)

December '18

Coursework: *Design and Analysis of Algorithm, Database Management System, Object-Oriented Design and Development.*

### University of Mumbai, D.J. Sanghvi College of Engineering (Bachelor of Computer Engineering, First Class)

May '14

Coursework: *Artificial Intelligence, Advanced Database Systems, Algorithm Analysis, Data Mining and Machine Learning.*

75.12%

## PROFESSIONAL EXPERIENCE

### JP Morgan Chase & Co. (Associate)

July '14-July '17

- Led a four-member Team and successfully delivered an Informatica project to centralize storage of vendor published Market Data.
- Developed ETL processes using Python, Shell script, Java and HP-Vertica to load Mortgage related performance data and perform analytics on this data to calculate patterns and reports for trade execution and prediction models.
- Reduced process's total run-time from days to hours by creating necessary partitions, batches in SQL and improvements in Indexes.
- Acted as the Production Release Manager and designed Automated deployment system to assure quality code, testing and security.

### Pratham Education Foundation (Technical Lead)

August '16- August '17

- Leveraged "Joget Tool", Java and Microsoft Azure to create a web and mobile ready, Cloud-based HR and Expense Management that helped the NGO in automating their manual tasks and scaling-up operations with a projected savings of \$150,000 per year.
- Designed and co-implemented Selenium test-suite to facilitate sustainable development for the NGO.

### ShipEasy (Co-Developer)

September '13- September '14

- Developed an SEO optimized responsive online web portal using PHP, Bootstrap, and JavaScript. Designed rule-based reminder system using emails and SMS for the Logistics providers and Customers. Incorporated Google Maps API in the system to generate shipment quotation using distance, cargo and other metrics.

### CAV Aviation Services (Co-Developer)

February '13-March '13

- Improved User Experience by pre-fetching database driven webpages using jQuery, implemented using hidden division concept for a one-page website. Developed layouts, Database schema, and Administrator panel in PHP to facilitate content management.

## SKILLS AND TECHNOLOGIES

- **Languages:** Python (proficient), Java (proficient), C# and Shell Script.
- **Databases:** MS-SQL, HP-Vertica and MySQL.
- **Web Technologies:** HTML, jQuery, PHP, JavaScript, and CSS.
- **Software:** SQL Server Management Studio, Business Intelligence Development Studio, Informatica, Visual Studio and Eclipse.

## PROJECTS

- **Capstone: Retrieving, Processing, and Visualizing Data:** Developed a web-crawler using Python and "Page-rank" algorithm to create search engine index, stored in SQL. Designed a process to extract data from a large email dataset. Performed mapping and cleaning operation on the data to analyze the trend of various dimension like sender's domain, word frequency, email count. Visualized the inbound/outbound links in form of connected graphs, histograms, and line graphs using D3.js library.
- **Machine Learning by Stanford University:** Implemented Image recognition, Clustering, Anomaly detection and Recommender systems using regression, classification, Neural-Networks, Support Vector Machines and other Machine Learning techniques. These algorithms were implemented in Octave.
- **Optimization of Traveling Salesman Problem using Neural Networks:** Implemented a hybrid approach that comprises an Adaptive Neuro-Fuzzy Inference System and Simulated Annealing algorithm to determines the path based on distance and other factors like profit, the probability of successful deal etc. Published journal articles in IJCSE about the theory and implementation of this project.
- **Data Warehouse and Mining Tool with ETL:** Performed extraction of data from different file formats, data cleaning, and loading the consolidated data into MS Access database. Implemented various data mining algorithms like Naïve Bayes, K-Nearest Neighbors, K-Means Clustering and Hierarchical Clustering on the consolidated data using Java.

## ACHIEVEMENTS AND EXTRACURRICULARS

- **Voluntary Service, 'Force for Good' Ambassador and Judge:** Participated in philanthropic initiatives and developed technology solutions for partner NGOs. Counseled the NGOs on various automation options and infrastructure maintenance.
- **Campus-Recruitment Coordinator:** Managed the recruitment activities for Computer Engineering department. Operated as a medium of communication between students, recruitment cell, and the company representatives.
- **Winner of 'Code for Good Challenge' Hackathon** organized by JP Morgan Chase & Co.: Developed a cross-platform mobile web application and IVR/SMS system for "Teach for India", solving their operational problems of tracking attendance, of their fellows