

# Pratik Bhagwat

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## WORK EXPERIENCE

### **Software Engineer – Coupang (AI and Data Platform)** (Jan 2021 - Present) (Seattle, Washington)

- Designed, implemented, and launched an organization-wide analytics notebook platform for 4500+ monthly active users.
- Enhanced the Apache Zeppelin open-source project with heavy query handling capacity for Presto and Livy Spark workloads. Additionally added version control features, facilitating more than 50,000 daily active jobs.
- Improved the Customer Experience Analytics platform by introducing functionalities to the Funnel, Journey, and Trend analysis sections, catering to over 100 monthly active users.
- Engineered a top line metrics report by building data pipelines to collect usage and system metrics for BI tools like Superset, Redash, Zeppelin, and Tableau.

### **Software Engineering Intern – Coupang** (May 2021 - Aug 2021) (Seattle, Washington)

- Designed, built, and delivered a UI application for the Funnel and Journey analysis in Customer Experience Analytics Platform.
- Expanded the set of APIs required by the frontend in an existing Spring Boot application.

### **Software Engineer – Larsen and Toubro Infotech** (Feb 2018 - Jun 2019) (Mumbai, India)

- Lowered resource efforts and accelerated the employee allocation process 10x faster by designing and implementing an automation pipeline using SAP HANA, SuccessFactors, and HANA Cloud Integration.
- Developed an invoice generation application for the contracts in the organization using SAP ABAP, Adobe Lifecycle, reducing manual efforts at the end of every billing cycle.
- Enhanced the contract management system with features like contract amendments and milestone monitoring.

## TECHNICAL SKILLS

- **Programming Languages:** Java, Golang, Python, Scala, JavaScript, C, C++, SAP ABAP, SQL
- **Cloud Stack:** AWS (EKS, EC2, S3, EFS, IAM)
- **Infra Stack:** Kubernetes, Docker, Terraform, CloudFormation, Ingress
- **Tools and Web Stack:** React.js, Vue.js, Node.js, Express.js, Spring Boot, Form Calc, HTML, CSS, Git
- **Data Engineering:** Hive, Presto, ClickHouse, Spark SQL, MongoDB, MySQL, PostgreSQL, SAP HANA, Apache Airflow, Apache Zeppelin
- **Core CS Concepts:** Algorithms, Data Structures, Computer Networking, Distributed Computing, Machine Learning, Object-Oriented Programming

## PROJECTS

### **Product Recommendation and Ranking System**

Designed an e-commerce product recommendation system using NLP and Deep Learning on a dataset of 25000+ apparel text and image features from Amazon.com.

### **A\* Path Finder Algorithm Visualizer**

Implemented an A\* algorithm on a topological map with terrains such as water, road, forest, and mountains, accounting for different seasons in the algorithm. Visualized the algorithm in action.

### **Routing and Reliable Data Transfer over UDP**

Implemented RIPv2 routing protocol and designed a Reliable Data Transfer protocol by deploying a VM network of 10 nodes on Docker.

### **Relational and NoSQL Database Application Comparison**

Developed a thread-safe application to compare MySQL vs MongoDB performances for throughput, latency, and ACID properties. The application generated a TPC-C-like workload for e-commerce order traffic of over 1000 orders with up to 10 concurrent threads.

### **Parallel Matrix Multiplication**

Implemented a Cannon's algorithm for matrix multiplication using Java MPI. Tested the algorithm on a multicore cluster with 65536×65536 matrices.

### **Web UI based Automator for Grocery Shopping - JAVA, C++, Selenium IDE, ARM-Mbed, Load cells**

Designed a system to buy the groceries from a predefined URL by sensing the weights of the same. Used the selenium ide to emulate the human actions required to buy the grocery product. Developed a JAVA application to get the load cell data from the ARM-Mbed development board.

## EDUCATION

### **Master of Science, Computer Science** (Rochester Institute of Technology)

GPA: 3.79/4.00

### **Bachelor of Engineering, Electronics and Telecommunications** (University of Mumbai)