# PRIYANKA K

# PROFESSIONAL SUMMARY

* Around 10 years of experience in designing and developing **data pipelines architectures, building models, data visualization/analytics and Java/J2EE Client** and Server side Enterprise Applications using object oriented methodologies, enterprise technologies, frameworks and design patterns.
* Worked with large-scale, **structured**, and **unstructured** datasets to create **predictive, forecasting, optimizing** Machine learning models.
* Worked on **SQL, Python and R** languages to the design, development, and maintenance of ongoing ML Models, analyses, dashboards, etc. to drive key business decisions
* Having good exposure on **marketing analytics, Customer Feedback analysis, Building recommendation models** and Forecasting.
* Experience with building and/or fine-tuning large language models, as well as traditional machine learning models
* Worked in building **ETL** pipeline for **data ingestion, data transformation, data validation** on cloud service GCP, working along with data steward under data compliance.
* Developed **ETL** pipelines to extract data from an external API’s and loading them into data warehouse
* Created impactful dashboards in **power BI** for data reporting. Extracted, Interpreted, and analyzed data to identify key metrics and transform data into meaningful , actionable information
* Proficiency in Predictive and **data Modeling, Data mining Methods, Factor Analysis, ANOVA, Hypothetical testing, normal** distribution and other advanced statistically Developed predictive models using Decision Trees, Random Forest, Naïve Bayes, **Logistic Regression, Cluster Analysis, and Neural Networks**
* Worked on Data Build Tool for transformations in ETL process, **AWS lambda, AWS SQS**.
* Migrated an existing on-premises application to AWS. Used AWS services like EC2 and S3 for small data sets processing and storage, Experienced in Maintaining the Hadoop cluster on AWS EMR.
* **Model Management** - Built a centralized hub to host and manage all the **Machine learning ,Deep learning** and **Nlp** Models with the help of CI/Cd pipelines, Micro services, **Python , flask, Seldon core**
* Worked **on NLP, Unstructured, Semi Structured and Structured data analytics** and have worked on analyzed the customer’s survey data, Case data and generate reports to identify hidden insights and extensively worked on generating different Customer focused Analytics.
* Extensively developing predictive models using machine learning algorithms like **Random Forest, SVM, XGBOOST, and DECISION TREES. Regression, LSTM**
* Develop end-to-end **ML pipelines** encompassing the ML lifecycle from **data ingestion, data transformation, model training**, model validation, model serving, and model evaluation over time.
* Worked in building ETL pipeline for data ingestion, data transformation, data validation on cloud service AWS.
* Experience on AI Tools and libraries **like scikit-learn** , **Tensor Flow, Keras, Pytorch, Pandas, Numpy, Time series Forecasting**

(ARIMA/SARIMA/LSTM), DASK, Machine Learning ,Classification, Regression, Deep Learning, NLP.

* Worked on generating/providing insights, performing deep-dive analysis on strategic and tactical topics, providing subject- matter-expert input into Board-level discussions.
* Identify and utilize data analysis and measurements effectively to identify performance **trends** and turn data into **insight**s
* Performed operations on Extracted data **using BigQueryLanguage**(BQl) in **GCP** to create reports in Google Data Studio and Worked on **VertexAI** an **AutoML** platform in GCP to build a predictive model,Worked on GCP Cloud Logging
* Experienced and result-focused Data Engineer with deep expertise in **Cloud Computing , Data warehouse**, Migration Developer Process, ETL Expert and Business needs analysis
* Build and maintain data pipelines for **data preprocessing and feature engineering to ensure data flows** efficiently to the machine learning models.
* Familiarity with use of Machine Learning techniques and algorithms used for building Classification and Regression models. Use of Deep Learning techniques for both analyzing data and gaining the insights
* Worked on Natural language processing, including **topic modeling, intent & entity extraction** and summarization of NLP
* In depth knowledge on Big Data Stack like Hadoop ecosystem **Hadoop, Map Reduce, Kafka, PySpark SQL,**
* Successfully led NLP text summarization projects utilizing **cutting-edge LLMs, including GPT-3 and BART**
* Extensive experience in Front-End UI technologies like HTML4/5, XHTML, CSS2/3, Bootstrap, **Angular JS, Angular4.0/8.0** in developing dynamic and responsive web pages.
* Good experience in Client Side Scripting like **JavaScript, Jquery** to build highly interactive web pages.
* Well versed with Core Java concepts like Collections, **Multithreading**, Serialization, Java Beans.
* Experience in developing Angular 4 advanced features such as interfaces, nested components, services, routing and modules.
* Experience in developing client side validations using **Angular4** and in developing **Custom pipes, Shadow DOM**.
* Good understanding on Server-side JavaScript structures like **Node.JS with Express.JS**.
* Experience in applications using SOA architecture with SOAP, Restful Services and used XML for message communication.
* Used Spring Boot to develop and deploy both Restful web services and MVC applications.
* Developed Micro services based on Restful API utilizing Spring Boot with Spring MVC.
* Implemented Business layer using Spring 4.0 (IOC, AOP**), Spring MVC** and persistent layer using DAO and **Hibernate**.
* Expertise in various open source frameworks like Angular JS, React JS, Node JS, Struts 2.0/1.2, Spring 2.5/3.0, Spring MVC, IoC, Web and ORM Technology like Hibernate 3.0, JPA, EJB3.0,IBatis, Mybatis, JQuery.
* Implemented Hibernate first-level cache and Second Level Cache.
* Used Spring Kafka API calls to process the messages smoothly on Kafka Cluster setup.
* Excellent experience with Relational databases like Oracle, SQL Server, DB2
* Extensive hands on experience in setting up **CI/CD** pipelines using **Jenkins**.
* Worked on various SDLC (Software Development Life Cycle) from Waterfall to Agile (**SCRUM**) models.

# TECHNICAL SKILLS

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| **AI TOOLS / Libraries** | scikit-learn, RandomForest, Boosting, Bagging, LightGBM,XGBoost,CatBoost,Naïve Bayes,K- NN,clustring,LogisticRegression,LinearRegression,TensorFlow, Keras,pytorch, Pandas, numpy, Time series Forecasting (ARIMA/SARIMA/LSTM), DASK, Machine Learning , Deep Learning, CNN, RNN, LSTM, BERT,NLP,Clustering, Supervised, Unsupervised algorithms, LLM, GPT-3, BART,NLP  , |
| **PROGRAMMING LANGUAGES** | Core Java, C++, SQL , Python, R,Pandas, Numpy, DASK, |
| **Scripting Languages** | HTML5, CSS3, JavaScript, AJAX, JSON, Bootstrap, jQuery, AngularJS, React |
| **J2EE TECHNOLOGIES & FRAMEWORKS** | Servlets, EJB, JSP, JSF, JDBC, SOAP, WSDL, REST, XML, XSD,JAXP, JAXB, JPA, Spring,  Hibernate, Spring MVC, Spring Boot, Spring Data, Spring Batch, Spring cloud. |
| **DATABASES** | Oracle, SQL Server SQL ,Snowflake, MongoDB, PostgreSQL, Hadoop,Hive, RDBMS |
| **APPLICATION/WEB SERVERS** | JBoss, Apache Tomcat |
| **MESSAGING SERVICES** | Kafka |
| **BUILD & CONFIGURATION TOOLS** | Maven, Jenkins, |
| **TESTING TOOLS** | Junit, TestNG, Mockito, Jasmine, Karma, Mocha, |
| **VERSION CONTROL TOOLS** | GIT, TFS |
| **PROJECT MANAGEMENT TOOLS** | JIRA |
| **CLOUD TECHNOLOGIES** | AWS, EC2, EBS, S3, Docker, ECS, EKS |
| **OPERATING SYSTEM** | Windows, Linux, Unix, MS-DOS |
| **IDE’S** | Eclipse, Visual Studio, Spring Tool Suite, Visual Studio Core , Jupyter Notebook , Pycharm, Google Colab |
| **BI TOOLS** | PowerBI, Seaborn, Matplotlib |

**PROFESSIONAL EXPERIENCE**

# UPS September 2023 - present

**AI/ML Data Engineer**

* Build a platform with capability to automate the analysis of input data, train and deploy time series model that predicts the future forecast based on history data and trends
* Design and perform advanced statistical analyses, such as regression models, time series analysis, and data clustering, to identify trends, patterns, and correlations in the datasets
* Designed and developed interactive Power BI dashboards for monitoring and analyzing customer payments.
* Implemented data models and ETL processes to integrate diverse payment data sources into Power BI, Used DAX quires, M-

Query, created Measures s

* Conducted thorough analysis of customer payment trends and patterns using Power BI to support strategic decision-making.
* Effectively spearheaded NLP text summarization initiatives, employing advanced LLMs like GPT-3 and BART
* Demonstrated proficiency in precise fine-tuning, strategic prompt design, and outperforming benchmarks, coupled with expertise in data preprocessing, streamlined model evaluation and collaborative communication across cross-functional teams.
* Designed and implemented ETL processes to integrate data from multiple sources into a centralized data warehouse
* Worked on NLP, Unstructured, Semi Structured and Structured data analytics and have worked on analyzed the customers survey data, Case data and generate reports to identify hidden insights.
* Worked on Service order data, generating the reports to know the utilization of the new products, growth of the customer, customer interest, Identifying the customer segment and Sentiment analysis on community forum data.
* Developed and fine-tuned large language models for various NLP tasks, including text generation, sentiment analysis, and language translation.
* Collaborated with data engineers to optimize data pipelines for efficient model training and deployment.

# Levi Strauss & Co September 2022 – August 2023

**Data Engineer**

* Extensively worked on Data Cleansing, transformation and Loading for data analytics
* Designed and implemented ETL processes to integrate data from multiple sources into a centralized data warehouse
* Implemented data storage solutions using both relational and NoSQL databases, such as MySQL and Cassandra
* Extensively worked on generating different Customer focused Analytics
* Collaborated with data analysts and scientists to design and implement data visualization and reporting solutions
* Worked on Data mining to determine the deep insights into data.
* Worked on Service order data, generating the reports to know the utilization of the new products, growth of the customer, customer interest, Identifying the customer segment and Sentiment analysis on community forum data.
* Extensively worked on identifying the Key performance Indicators(KPI), bottle necks analysis.
* Analyzing all formats of data to bring the hidden insights.
* Worked on NLP, Unstructured, Semi Structured and Structured data analytics and have worked on analyzed the customers survey data, Case data and generate reports to identify hidden insights.
* Working on dashboards using Tableau design and development
* Extensively worked on creating dashboards, developed reports using power bi, Tableau.
* Extensively worked on developing stored procedures, adhoc queries using SQL
* Build and maintain dashboards and other reporting tools to monitor targeting models, acquisition funnels and other business metrics relevant to managing core data science products.
* Implemented data models to support business intelligence and reporting needs
* Used JIRA as the bug tracking system to track and maintain the history of bugs/issues on everyday basis.
* Used GIT for version control and Jenkins for Continuous Integration and Continuous Deployment (CI/CD).

# Verizon June 2014 – April 2022

**AI/ML Engineer**

* Worked on generating/providing insights, performing deep-dive analysis on strategic and tactical topics, providing subject- matter-expert input into Board-level discussions.
* Developed and implemented a machine learning model that improved customer churn prediction and reduction in customer attrition and increase in customer retention.
* Worked with large-scale, structured, and unstructured datasets to create predictive, Classification , regression , forecasting, optimizing Machine learning models
* Developed and implemented a machine learning model that improved customer churn prediction and reduction in customer attrition and increase in customer retention.
* Applied PCA to high-dimensional datasets to reduce dimensionality and improve model performance and increase in accuracy.
* Contribute using SQL and Python languages to the design, development, and maintenance of ongoing ML Models, analyses, dashboards to drive key business decisions
* Worked on data cleansing, and integrate data into usable and helpful information, extensively used different core libraries for data mining, cleansing.
* Worked on AI Tools and libraries like Scikit-learn, Tensor Flow, Keras, Pytorch ,Pandas, Numpy, Time series Forecasting (ARIMA/SARIMA/LSTM),DASK, Machine Learning, Deep Learning.
* Worked on NLP, Unstructured, Semi Structured and Structured data analytics and have worked on analyzed the customer’s survey data, Case data and generate reports to identify hidden insights and Extensively worked on generating different Customer focused Analytics.
* Extensively Developing predictive models using machine learning technique like Random Forest, SVM, XGBOOST,DECISION TREES. Regression, LSTM
* Worked on Model Management - organizes entire library of AI/ML models, versioning, discoverable and monitoring
* Worked on Auto scaling - ML Models are containerized, wrapped in an API, and ready for scale
* Cluster health and application health monitoring by NewRelic and Splunk for Troubleshooting
* Extensively worked on Data Cleansing, transformation and Loading for data analytics.
* Worked on building the NLP- Text Analytic modules for Sentiment Analysis to capture the customer journey across the different channels of ordering applications. Identifying the pain points in the operations
* Extensively worked on developing complicated analytical reports using Tableau, power BI etc
* Implemented the platform's design - which creates a Dockers image by taking the Machine and Deep learning models along with dependency libraries, configuration and get hosted in AWS Elastic Kubernetes Service using CI/CD pipeline
* Experience with ML training/retraining, Model Registry, ML model performance measurement using MLOps open source frameworks such as seldon core
* Working on Customer Analytics, Data mining, Data Clean-up and loading, ML programming, Tableau design and development, and Data modeling
* Worked on AWS services like EC2 and S3 for small data sets processing and storage, Experienced in Maintaining the Hadoop cluster on AWS EMR

# Full Stack Java Developer

* Developed Web pages from scratch using HTML5, CSS 3 and JavaScript.
* Used Angular 4 component router for navigation. Worked with Angular 4 directives, components, pipes, and injectable.
* Programmed in Angular 4 to upload (post) files/images to the AWS S3 browser from the Front-end by installing NPM package of AWS-SDK.Created Typescript reusable components and services to consume REST API's using Component-based architecture provided by Angular 4.
* Involved in the development of services with Angular 4 injectable property, as to make the service available for dependency injection when creating components.
* Performed Verification and validation process for the code written by making use of Jasmine and Karma JavaScript testing framework by testing across various scenarios of the Angular 4.0 applications.
* Designed and developed RESTFUL web services using Spring Boot and Jersey framework.
* Used Spring Boot which is radically faster in building cloud Micro Services and develop Spring based application with very less configuration.
* Have knowledge on partition of Kafka messages and setting up the replication factors in Kafka Cluster.
* Worked with various features in spring such as Spring AOP, Spring Transaction management.
* Implemented Spring Bean Factory using IOC Configured Bean properties using dependency injection.
* Migrating existing application into REST based Micro services to provide all the CRUD capabilities using Spring Boot.
* Used Swagger specification for documenting REST API's which exposes description of a RESTFUL web services to different clients.
* Created various Docker images from the Docker containers and published these images in the Docker hub repository.
* Deployed the Dockerized Spring Boot application using AWS Elastic Bean Stalk (EBS).
* Worked on Deployment Automation of all micro services to pull image from Private Docker registry and deploy to Kubernetes Cluster.
* Wrote services with Angular 4 to store and retrieve user data from the Mongo DB for the application on devices with HTTP service.
* Authenticating Users and to provide the security to Restful web services using OAUTH 2.0.
* Extensively used Git for version controlling and regularly pushed the code to GitHub.
* Used JIRA as the bug tracking system to track and maintain the history of bugs/issues on everyday basis.
* Used GIT for version control and Jenkins for Continuous Integration and Continuous Deployment (CI/CD).

**Environment:** Angular 8, React ,HTML5, CSS 3, JavaScript, AWS S3, Gulp, RESTful Web Services, Web Pack, Babel, Jasmine, Karma, Spring Boot, Jersey, Micro Services, Rest Services, AWS, Node JS, GitHub, JIRA, Jenkins, Docker.

**Education**

* Masters in Data Science from Rutgers University, New Brunswick, NJ