Mahesh Jindal

https://maheshjindal.github.io/ | mj3038@columbia.edu | (+1) 917 349-4687

EDUCATION

Columbia University New York, NY
M.S. in Data Science Dec 2022
Coursework: Data Structures and Algorithms, Machine Learning, Reinforcement Learning, Computer Systems, Deep Learning, Large Scale Streaming Systems, Probability, Statistics and Inference Modelling, Data Analytics, System Design

Chitkara University Chandigarh, IN
*B.E. in Computer Science and Engineering; GPA:9.64/10;(Rank: **1st** out of **2000**)* Jun 2020
Coursework: Data Structures and Algorithms, Cloud and Distributed Computing, Software Engineering, Statistics, Machine Learning, Database Management Systems, Operating Systems, Discrete Mathematics, Engineering Mathematics.

WORK EXPERIENCE

Audible, an Amazon Company Newark, NJ
Data Science Research Intern (Content Personalization Team) Jun 2022 - Aug 2022

- Performed research and feature analysis on user datasets to finding weaknesses in existing Personalization ML models.
- Worked on research and data modelling of new positional bias model using **contextual bandits and Bayesian Linear Probabilistic models for widget personalization** with Audible and Amazon P13N teams.
- Designed and implemented a new ML framework for training Contextual Bandits and Bayesian Linear Probabilistic models with optimization algorithms from scratch using Java, Spring, AWS Sage Maker, Step Function and Glue Jobs.
- Worked on MLOps – Data Preprocessing, Model integration, versioning for deploying ML model to production.
- Received Accolades from manager and teammates for demonstrating outstanding technical and leadership skills.

FICO Bangalore, IN
Software Engineering - Engineer I (Data Science Department); Employee Recognition Award Jun 2021 - Aug 2021

- Worked on a sentimental analysis modelling and inference with **93% accuracy** using **NLP, Deep Learning and Data Modelling** on equity research reports required for generating a consumer risk score.
- Developed an **event-driven analytical framework** (using Java, Kafka, Spring, AWS, DynamoDB, Kubernetes) to capture and monitor data events **from 15+ applications**. It also generates automated Tableau reports and sends alerts in case of any application malfunction. It helped in improving client services and **reducing labor costs by $400000**.

Software Engineering - Associate (Data Science Department); Employee Recognition Award Jul 2020 - May 2021

- Worked on the **information retrieval**, **backend**, **scalable data processing** and **distributed algorithms** for a $3M project named "FICO Analytics Workbench" using Java, Scala, Kafka, TensorFlow, Spark, Zookeeper, AWS.
- Designed and developed an **AI-powered** machine learning **model using Neural Networks with ensemble methods** for generating optimal AWS infrastructure resource deployment configuration using Python, Scikit-Learn, NumPy, Pandas, Flask, and AWS. It helped in reducing overall **AWS billing cost by $1M**.

Software Engineering - Intern (Data Science Department); SPOT Award Winner Mar 2019 - Jun 2020

- Created **RESTful web services** and framework from scratch for managing and executing **Spark Batch Jobs, Data Streaming Jobs** using Java, Python, Scala, Kafka, Hadoop, Spring and PySpark used by 15+ internal applications supporting multiple input and output data formats (AVRO, Parquet, JSON, XML, CSV).

LANGUAGE AND SKILLS

Programming Languages:	Java, Python, Scala, R, C++, SQL, CSS, HTML, Javascript, JSON, XML, LaTeX.
Frameworks:	Spark, Kafka, Hadoop, Zookeeper, TensorFlow, Spring Boot, Spring Cloud, PyTorch, Kubeflow, NumPy, Pandas, Scikit-Learn, Matplotlib, Scalatra, Seaborn.
Cloud Services/Orchestration:	AWS (S3, Step Functions, EMR, IAM, EC2, Lambda, ELB, SageMaker, RDS, Kinesis, CloudWatch, Glue, Fargate, ECR, EBS, MSK), GCP, Docker, Kubernetes.
Databases:	MySQL, PostgreSQL, H2, DynamoDB, MongoDB, AWS Redshift.
Others:	REST, SOAP, Tableau, Git, GitHub, Jira, IntelliJ Idea, Bash Scripting, Jupyter Notebook, Jenkins, Maven, Tomcat, Hibernate, Linux, VM Virtualization

PROJECTS AND RESEARCH

Fake information detection in Social Networks using Graph Neural Networks & NLP [Link] Dec 2021

- Designed a deep learning framework to detect fake news/misinformation and susceptible nodes in social graphs. Data and Concepts: Twitter Dataset, Graph Neural Networks, Text Preprocessing, Text Embedding, Attention Mechanism and Algorithmic modelling; Technologies: Python, PyTorch, NumPy, Pandas, Matplotlib, NLTK, Tensor Board.