Rohan Singh

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SKILLS SUMMARY

- **Languages**: Python, SQL, Java, Scala, Go, R, C++
- **Tools & Skills**: Data Science, Machine Learning, Analytics, Data Visualization, Deep Learning, Statistics, Data Mining, Terraform, Spacy, Spark, Tableau, Keras, TensorFlow, GIT, MS-Excel, IBM Cognos, Pytorch, Data Version Control, MLFlow
- **Databases**: Postgres, DynamoDB, ElasticSearch, MySQL, MS-SQL, Redis
- **Cloud**: AWS, GCP, IBM Cloud

EXPERIENCE

- **IBM** — San Francisco, CA
  Senior Data Scientist & Managing Consultant — *July 2020 - Present*
    - **Bias in actuarial models**: Creating a data pipeline for a top automobile insurance client to understand and explain the potential biases in current models in the light of recent changes due to COVID.
    - **Covid Recovery Index**: Lead a team of 4 to develop a COVID impact planning strategy for one of the top automobile insurer in the US by predicting and explaining the impact of COVID on driving at a county level using ping data from cellphones and other socio-economic and epidemiological variables. Created a dashboard to aggregate and organize all data to show the trends required for decision making by top leadership.

- **IBM** — San Francisco, CA
  Data Scientist & Senior Developer — *July 2018 - June 2020*
    - **Advanced Automation Platform**: Conceptualized a AWS Serverless architecture to automate claims processing for one of the top insurers in the United States. Lead and worked with a team of developers to implement and roll out to production within 4 months. Improved straight through processing by 30%.
    - **Legal Billing Anomaly Detection**: Developed a proof of concept and later helped implement a full product for a Fortune 10 company to help them find anomalies in legal billing data using NLP and multi-class classification. Helped the client save over 20% in legal bills and reduce the review times by 90% per invoice for a particular subset of legal billing category.
    - **Search Optimization**: Lead the effort to apply machine learning and Lucene to optimize the enterprise search (elasticsearch)of a leading financial services client.
    - **Natural Language Classification**: Developed a state-of-the-art classification system which classifies queries generated in natural language to a set of defined categories. Also, developed infrastructure using scala and AKKA http to support the machine learning models to be served on the network using a REST API.

- **Carnegie Mellon University** — Pittsburgh, PA
  Research/Teaching Assistant - Alessandro Acquisti/Janusz Szczypula — *May 2017 - May 2018*
    - **Behavioral Economics & DBMS**: As a Behavioral Economics RA, developed a data gathering tool to analyze effects of advertisement and their placements in Google search results - organic vs sponsored. As a DBMS TA, conducted labs and graded assignments for Database Management Systems

- **Citadel LLC.** — Chicago, IL/ London, GB
  Software Engineer — *Mar 2014 - Apr 2017*
    - **Data Quality Monitoring System**: Developed a flexible monitoring system to check quality of external data from vendors using state-of-art statistical data analysis, resulting in 200% decrease in turn-around time.
    - **Commodity Trading Modelling**: Architect-ed a front-end interface, enabling the trading team to run models on-demand and make quick decisions. Revamped the legacy MS-Excel analysis system to use python along with modern scientific packages, reducing the model development and testing time exponentially.
    - **Future Pricing Model**: Implemented a Future Value model to generate trading signals for soft commodity futures.

EDUCATION

- **Carnegie Mellon University** — Pittsburgh, PA
  Master of Information Systems Management; GPA: 3.87 (Highest Distinction, Dean's List) — *May - 2018*
  Courses: Machine Learning, Distributed Systems, Database Management, NoSQL, Statistics, Data Structures, Optimization, Economic Analysis, Practical Data Science, Managing Disruptive Technologies, Data Mining

- **Birla Institute of Technology** — Mesra, India
  Bachelor of Computer Science; GPA: 3.5 (7.70/10.0 - First Class with Distinction) — *June - 2011*