Deepak Rishi

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SUMMARY

I am a Computer Scientist with extensive experience with deep learning, advanced machine learning, data engineering and NLP.
I develop AI/ML based products.

SKILLS

PROGRAMMING

• Tensorflow • Pytorch • Python
• C++ • C# • Spark • Scala • Java

EDUCATION

UNIVERSITY OF WATERLOO

MASTER OF MATHEMATICS IN COMPUTER SCIENCE

Major : Machine Learning
Graduated December 2017 with
Cum. GPA: 89
Awards : David R. Cheriton Graduate Scholarship •Mathematics Graduate Experience Award •Mitacs Globalink Fellowship

BITS PILANI

B.S. IN ELECTRONICS AND INSTRUMENTATION

Graduated May 2014 | India
Cum. GPA: 9.12
Major : Machine Learning
Dean's Top 10 Students (3 years)

COURSEWORK

GRADUATE

Machine Learning
Deep Learning
Operating Systems
Intro to Artificial Intelligence
Time Series Analysis
Concurrent and Parallel Programming
Computer Networks
Algorithms
Memory Management and Garbage Collection

EXPERIENCE

MICROSOFT |SOFTWARE ENGINEER II (MACHINE LEARNING)

April 2020– Present | Canada

- Developing Ring-0 microservices based data pipelines for all sovereign clouds to transfer Azure's machine telemetry data to be processed for recommendations and billing.
- Developed real time Anomaly detection pipeline using Trill to identify anomalies in machine telemetry data.
- Wrote recommendation data ingestion pipeline using Azure function and deployed to all sovereign clouds.

RITUAL |TEAM LEAD/MACHINE LEARNING ENGINEER

January 2019– March-2020 | Toronto,Canada

- System design and implementation of Ritual's new scalable search engine using Elasticsearch using to support internationalization. Increased conversion by 300%.
- Developed query understanding API using CNN's to extract category/price information from search query. Led to 2x more order conversion from search page.
- Designed and implemented Ritual's Generic Data Validation Framework in Airflow.
- Designed and implemented Ritual's asynchronous and real time data duplication pipeline using Elasticsearch and machine learning with 1 second worst latency and 90% F1 score.
- Designed CI/CD pipeline using Gitlab to deploy machine learning models and Decreased production deployment of all microservices from 1 hour to 2 minutes.

PUBLICATIONS

- Affective Sentiment and Emotional Analysis of Pull Request Comments on GitHub.[Master's thesis: Developed a scalable deep learning pipeline for sentiment analysis which enables deep neural nets converge to a local optima using limited labelled data.]

- Artificial Intelligence and Social Simulation: Studying Group Dynamics on a Massive Scale [Jesse Hoey and Tobias Schroeder and Jonathan H. Morgan and Kimberly B. Rogers and Deepak Rishi and Meiyappan Nagappan (Small Group Research, Volume 49, Number 6)]

- Artificial Intelligence and Social Simulation: Studying Group Dynamics on a Massive Scale [Jesse Hoey and Tobias Schroeder and Jonathan H. Morgan and Kimberly B. Rogers and Deepak Rishi and Meiyappan Nagappan (Small Group Research, Volume 49, Number 6)]

- Emotion and Interaction Processes in a Collaborative Online Network [Deepak Rishi; Jesse Hoey; Meiyappan Nagappan ; Kimberly B. Rogers ; Tobias Schroeder (International Conference on Computational Social Science, Chicago,IL, 2018)]

- Speaker Recognition Using Support Vector Machines [Sahoo, J. K., Deepak Rishi International Journal of Electrical, Electronics and Data Communication, 2(1), 1-4, 2014.]