



Nupur Iyer

AI Researcher

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Education

Schulich School of Business, YorkU

Master of Management in Artificial Intelligence

- Schulich Artificial Intelligence Entrance Award
- YorkU Excellence Award 2023
- Founder and leader of the GBC Wellness social media campaign. Marketing lead for Wellness events at Schulich.

Dr Ambedkar College, Nagpur University

Bachelor of Computer Science

- Batch topper with merit scores in all subjects in the final semester
- Lead representative of the Physics society
- Gold medal for presentation on Artificial Intelligence and the future under the Vidarbha University Physics Teachers Association (VUPTA)

Certifications

Machine Learning

Stanford Online
May 2019

Secure and Private AI: A Study in Differential Privacy

Udacity
June 2023

AWS Essentials

Amazon Web Services (AWS)
Dec 2020

Google Cloud Platform Fundamentals

Google
Dec 2020

For a brief introduction, please scan below



Alternatively, please click [here](#)

Experience

2023 • Royal Bank of Canada (RBC) Canada

Artificial Intelligence Consultant

Synthetic Data Engineering & Responsible AI

Devised and implemented statistical techniques to learn from data without harming the privacy of individual data points. Designed and implemented a Django interface for the RBC synthetic data generator service. Restructured user-interface for an in-house fairness service improving explainability and logical flow.

2021 - 2022 • Deloitte India

Associate Analyst, AI & Data Ops

Machine Learning and Neural Network Design

Designed a neural network architecture for a multi-class regression system to predict the **severity of insurance claims**, reducing case time significantly. Implemented **access and delivery system for user data** stored on **AWS, Azure** and **GCP** for an in-house Deloitte MLOps software. Built a **CoFi recommender system** to propose diet plans based on individual health profiles for client applications.

SQL Report Development and Quality Assurance Testing

Developed SQL reports for **Co bank (USA)** using SQL Server Management Systems and SQL Reporting Services to improve client ingestion system. Performed **QA for ~150 SQL-based reports** for the client and identified & **corrected 500+ technical flaws and 700+ design inconsistencies**. Mapped **data flows from source to consumption** from 1000+ lines of code (SQL, XML, Python, etc) for complex client banking systems within Co bank

Incident Resolution and Learning & Development Resource Representative

Developed a roadmap for common incident resolution and debugging techniques for client data ingestion system at **National Australian Bank (NAB)**, effectively **reducing client system incidents from high 200's to low, manageable 30's**. Connected hundreds of practitioners with industry leaders to enhance technical skills through both in-house and external vendor programs

Projects

• Conversations with an AI: a psych eval of ChatGPT

OpenAI

A study of the psychological side of the ChatGPT large language model with conversations targeted towards what the model "inherently knows"

Read more about the full project: [here](#)

• NLP Commonality Clustering

Child Protection Information Network (CPIN)

A commonality purge algorithm based on hierarchical clustering for regular duplicate identification and removal from the CPIN database

Request the full project report: [here](#)

• Variational Autoencoder (VAE) & Decoder

Schulich

A probabilistic set-up that allows users to create and evaluate synthetically generated information based on the input dataset used to identify anomalies in a time-series structured data format such as a video.

Read more about this project: [here](#)

• The Candy Counter project: a study in Object Identification

Hugging Face

Examination of Hugging Face's DETR object identification model by fine tuning to smaller, custom datasets of different images of candy.

Read more about this project: [here](#)