Jay Sharma

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WORK EXPERIENCE

Crown Point Pharmacy **January, 2014 – June, 2021**

Pharmacy Assistant

- **Attention to Detail**: Managed and organised medication stock, ensuring accurate tracking, storage, and retrieval, while adhering to pharmaceutical regulations.
- **Collaboration and Teamwork**: Collaborated with pharmacists and other pharmacy staff to ensure smooth daily operations and timely delivery of medications to customers.

Self-Run Business **January, 2022 – August, 2023**

Programming Tutoring

- **Instruction and Curriculum Development**: Designed and delivered customised programming lessons for clients of varying skill levels, from beginners to advanced learners. Created educational materials and coursework to aid in teaching.
- **Client Management and Business Operations**: Managed all aspects of the tutoring business, including scheduling, billing, and client communications. Developed marketing strategies to attract new clients and grow the business.
- **Feedback and Continuous Improvement**: Collected feedback from clients to improve tutoring methods and tailor lesson plans to meet individual needs. Pursued continuous learning to stay updated with the latest programming trends.

V.J. Pharmaceuticals **September, 2023 – April, 2024**

Data Analyst

- **Data Collection and Analyzation**: Collected data on customers and medication usage to identify trends and insights, driving strategic decision-making for **inventory managemen**t and sales forecasting.
- **Dashboard and SQL Usage:** Developed and maintained dashboards and reports using SQL and Tableau, improving data visibility and accessibility for the management team.
- **Profit Savings:** Analysis resulted in a better picture on which meds to keep in stock and at what quantities, resulting in 15% reduced medications expiring over 8 months and 11% less spent on inventory per month.

EDUCATION

University of Waterloo **September, 2016 – June, 2021**

Biomedical Science - BSc

Toronto Metropolitan University **September, 2022 – Present**

Honours Computer Science (4th Year) - BSc (**Current GPA: 4.0**)

PROJECTS

Text Generation with RNNs in PyTorch

Created a text generation model using PyTorch, capable of producing coherent sequences of text from a trained dataset (e.g., books, songs, poetry, etc). Followed a planned approach with the following steps in order: Preprocessing, Designing the Neural Network Architecture, Training the Model, and Text Generation. After completion, the code was iteratively improved in order to increase precision and reduce time/spatial complexity.

Chatbot with Seq2Seq and Attention Mechanism in PyTorch

Built a conversational AI chatbot using a Seq2Seq model with an attention mechanism in PyTorch. Preprocessed a dialogue dataset to create conversational pairs and trained the model to generate contextually appropriate responses. Implemented teacher forcing for efficient training and fine-tuned hyperparameters for improved dialogue coherence. Enhanced performance by integrating a dynamic attention mechanism for more focused responses, achieving robust conversational outputs.

Hospital Database (Oracle SQL Developer)

Collaborated with peers to create a relational database system through Oracle SQL Developer. Went through the process of creating an ER Diagram, generating tables, normalisation (BCNF), populating, and finally testing queries. Applied concurrency control techniques (2 Phase Locking) to force serialisation of schedules and prevent deadlock/starvation.

GPT-based Text Summarization

Developed a custom text summarization tool using a fine-tuned GPT model in PyTorch. Leveraged transfer learning on large-scale news and article datasets to generate concise, human-like summaries of lengthy texts. Implemented a preprocessing pipeline to clean and tokenize input data, and integrated beam search and temperature-controlled decoding to optimise the quality and relevance of the generated summaries. Achieved a balance between extractive and abstractive summarization, improving readability and information retention.