NEIL CHITRE

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EDUCATION

University of San Francisco **July 2022 - June 2023**

Master of Science in Data Science

Relevant Coursework: Advanced Machine Learning, Python Programming, Distributed Computing using Spark, Data Structures & Algorithms, Relational Databases, Probability and Statistics, A/B Testing, Data Analysis and Visualisation.

Manipal Institute of Technology **July 2014 - June 2018**

Bachelor of Technology in Computers and Communication Engineering

Relevant Coursework: Data Structures & Algorithms, Database Management Systems, Object Oriented Programming, Operating Systems.

PROFESSIONAL EXPERIENCE

Boost Sport AI **Nov 2022 - Present**

Data Science Intern

- Designed and developed an advanced sports prediction model using ELO ratings which accurately forecasted outcomes for multiple sports leagues including EPL, NBA and NFL. Model was able to successfully predict Win/Loss with 73% accuracy over the course of an entire season.
- Currently working on generating dynamic sports insights and game narratives using **NLG** (Natural language generation). These insights will offer unique perspectives on the performance of individual players and teams, as well as overall league trends, driving engagement and improving fan experience.

Philips Healthcare **July 2018 - May 2022**

Software Engineer II

- Developed an end-to-end software solution called ROCC that revolutionized remote radiology services by connecting senior radiologists with on-site rookie technologists, resulting in highly efficient MRI and CT scans.
  The solution addressed the challenge of radiologist shortage in remote locations and lack of training for rookie technologists, ultimately improving patient outcomes and accuracy of diagnosis.
- Spearheaded the development and implementation of the “Multi-Console” feature for ROCC, enabling radiologists to perform multiple MRI and CT scans simultaneously and reducing TAT by 14%.
- Collaborated closely with stakeholders, including radiologists, technologists, to gather and analyze business requirements and translate them into scalable features for ROCC.
- Developed a high-performance backend **Python** application using **Flask** and **RabbitMQ**, enabling seamless onboarding of new customers to the ROCC platform.
- Designed and implemented secure APIs using **Java Spring**, connecting the ROCC User Interface with the backend infrastructure and enhancing the user experience for customers.
- Designed the highly efficient and scalable database schema on **PostgreSQL** for the ROCC software application, resulting in reducing the application load time by 20% and patient connect time from 8 seconds to 3 seconds.
- Worked closely with the DevOps team to successfully deploy the ROCC software at three large hospital chains in the United States, reducing the average time of MRI and CT scans by 30% and patient recall rate by 23%.

Software Engineer I

- Responsible for developing the front-end web application for ROCC using **ReactJS**.
- Led the implementation of a critical video calling feature for ROCC, enabling real-time communication between Senior Radiologists and rookie Technologists using the Twilio API.

Wai Technologies **May 2017 - August 2017**

Data Science Intern

- Collaborated with the development team to build a **Recommendation System** for educational modules, enabling customers to discover relevant and engaging content with ease. This was achieved by implementing **Matrix Factorisation** to decompose the sparse User-Item rating matrix and computing the predicted ratings for each User and Item.

ACADEMIC PROJECTS

Scalable and Efficient Product Search Architecture (Github Repo)

- Implemented an efficient and scalable product search architecture that can handle large scale data and provide accurate results to users. The system can quickly and accurately identify similar products based on user queries.
- Utilized **Airflow** to build a streamlined ETL pipeline that automatically fetches data from an external E-Commerce API, pre-processes it, and stores it in a **MongoDB** database. Used TF-IDF in **SparkML** to create rich word embeddings and calculate cosine similarity scores to get similar products.

SKILLS

- Programming Languages: Python, SQL, Java, ReactJS, Shell Script, Typescript.
- Databases: MongoDB, MySQL
- Technologies/Frameworks: Apache Spark, Spark MLLib, Apache Airflow, MongoDB, Hadoop, Kafka, Flask, Java Spring, AWS S3, GraphQL, RabbitMQ, Git, PyTorch, Google Cloud Platform (GCP).
- Machine Learning: Linear Regression, Logistic Regression, Decision Trees, Random Forest, Boosting, Recommender Systems.