PRATIK SATISH HOTCHANDANI
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EDUCATION

Northeastern University, Boston, USA Expected May 2025
Master of Science in Data Science, **GPA 3.83**
Related Courses: Supervised Machine Learning, Algorithms, Introduction to Data Management and Processing

Vellore Institute of Technology, Vellore, India December 2020
Bachelor of Technology in Computer Science and Engineering. **GPA 3.7**
Related Courses: Machine Learning, Linear Algebra, Statistics, Calculus, Differential Equations, AI

TECHNICAL SKILLS

Programming Languages: Python, R, C, SQL
Data Science: Machine Learning Algorithms, Deep Learning, Time Series Forecasting, Image Segmentation, Image Classification, Exploratory Data Analysis, Natural Language Processing, Computer Vision
Libraries: NumPy, Pandas, sklearn, TensorFlow, Keras, PyTorch, SpaCy, FbProphet, PySpark, PandasAI
Additional: Microsoft Azure, Amazon Web Services (AWS), Apache Hadoop, Apache Spark, Git, Agile, Streamlit, Large Language Models, BERT, GPT

EXPERIENCE

Software Engineer
West Pharmaceutical Services, Bangalore, India January 2020 – June 2022

- Led creation of the cross-platform **West Digital app** using **Xamarin.Forms**, **C#**, facilitating efficient **SAP S4 HANA task execution on mobile devices**, resulting in a **40% increase in user productivity**.
- By prioritizing **Agile** methodology and implementing **CI/CD** practices, achieved a notable **37% acceleration in development speed**, while ensuring **faster**, and **enriched user experiences**.
- Identified and developed **key KPIs** "First Pass Yield (FPY)" and "Cycle Time". Integration led to a **22% increase in FPY** and **15% cycle time reduction**, elevating product quality and manufacturing efficiency.

PROJECTS

ArguSense: Elevating Argument Evaluation with NLP [GitHub]

- Implemented a **state-of-the-art NLP model** using **LongFormers** to accurately **identify writing structures** like thesis statements, evidence, and claims in lengthy argumentative essays, while employing **BERT** for **classifying argumentative elements** as "effective," "adequate," or "ineffective".
- Validated the model, **yielding a 0.633 F1-Score** for structure identification and **0.65 Log Loss** for argument classification and successfully deployed the models on **Azure ML** and built a web application using **Azure App services**.

Football Data Hub: [web-app]

- Engineered a **Streamlit-based web app** for **football match analysis**, empowering users to explore diverse match aspects. Integrated **interactive visualizations**, driving a **30% surge in user engagement**.
- **Innovated** with the **'Expected Threat (xT)' metric, by ensemble modeling**. Empowers users to assess pass impact on goal chances, deepening match understanding.
- **Elevated engagement** by integrating a **dynamic chatbot**, fueled by **OpenAI**, resulting in a **40% increase in real-time interactions**.

Parkinson Disease Progression Prediction: [GitHub]

- Developed and implemented various **machine learning models** to **predict Parkinson's disease progression** using protein abundance data from **cerebrospinal fluid (CSF)** samples. The project achieved **accurate predictions** and **identified potential indicators** of disease severity, contributing to future research and treatment approaches.
- **Evaluated performance** based on **MSE scores** and **SMAPE metrics** provided valuable insights into the effectiveness of each model, aiding in the selection of optimal methodologies for PD progression prediction.