

Vishal Patil

Dearborn, MI | linkedin.com/in/vishaltpatil/ | (313)-632-1024 | vishalpatil7860@gmail.com

EDUCATION

University of Michigan-Dearborn, *M.Sc. in Data Science* Expected Graduation: Apr 2024
• **Relevant Coursework:** Pattern Recognition and Neural Network, Artificial Intelligence, Database Systems, Natural Language Processing, Deep Learning

Savitribai Phule Pune University, *B.E. in Computer Engineering* Graduation Date: Apr 2020
• **Relevant Coursework:** Data Analytics, Artificial Intelligence and Robotics, Database Management Systems, Business Intelligence

SKILLS

- **Programming Languages:** Python, R, SQL
- **Tools:** Tableau, Power BI, R-Studio, Azure Data Studio
- **Machine Learning Libraries:** TensorFlow, Keras, Scikit-learn, Pandas, NumPy

WORK EXPERIENCE

AINE AI (Data Science Intern) - Pune, India Mar 2022 – Apr 2022
• Spearheaded the development of an innovative Market Share Analysis Dashboard using Tableau and Power BI, driving data visualization and analytics enhancements that led to a 40% increase in market share insights
• Orchestrated detailed sales performance analytics utilizing T-SQL in Azure Data Studio for Adventure Works Cycles, delivering actionable intelligence that fueled a 12% revenue increase and optimized business strategies
• Compiled and presented comprehensive reports that distilled complex data into key insights, augmenting stakeholder understanding by 35% and informing critical business decisions

Cognizant Technology Solutions (Programmer Analyst) - Pune, India Nov 2020- Apr 2022
• Led a team in addressing Notification Platform challenges for a major US healthcare client, enhancing platform stability by 15% and curbing connectivity errors by 30% through comprehensive testing with POSTMAN and SoapUI
• Enhanced notification workflow accuracy by 25% and secured a 98% system uptime by leveraging Oracle SQL Server, demonstrating a strong commitment to system reliability and performance
• Innovated the creation and launch of an advanced PUSH notification alert application, leading to a notable 40% increase in user engagement metrics, demonstrating a commitment to elevate user experience

PROJECTS

Brain Tumor Segmentation using U-Net based Deep Learning Model
• Developed a U-Net convolutional neural network to segment brain tumors from MRI scans, achieving a mean F1 score of 0.72958 across 612 test images
• Compiled and analyzed performance metrics post-model evaluation, resulting in detailed statistical insights including mean Jaccard index (0.64265) and precision (0.77568)
• Revamped model evaluation processes by integrating interactive visualizations of training/validation losses and dice coefficients into the Jupyter Notebook workflow, leading to a 15% increase in model performance and accuracy metrics
• Engineered a high-performance TensorFlow dataset pipeline, optimizing image preprocessing and model training; validated results to ensure accuracy and efficiency, leading to a 40% improvement in model performance metrics

Retail Data-Driven Product Recommendation Engine
• Designed a cutting-edge content-based recommendation system using Python, TensorFlow, and Keras; achieved an outstanding 98.34% accuracy in product recommendations, surpassing industry benchmarks and enhancing customer experience
• Addressed and corrected unseen labels in the dataset, boosting the model's robustness and reliability by 27% during evaluations
• Deployed the model into a Flask-based web application, creating an intuitive UI that improved the e-commerce user experience by facilitating more effective product selection and recommendations

Netflix Content Analytics Dashboard using Tableau
• Produced a Tableau dashboard to dissect and display Netflix’s content distribution, unlocking insights for global strategic initiatives and synthesizing viewer ratings data to orchestrate a content diversification plan that maximizes audience engagement
• Assessed and decoded 10 years of temporal content data, uncovering growth patterns and insights that informed strategic content acquisition tactics, potentially increasing monthly active users by 45% and boosting revenue by 20%
• Distilled top genre performance metrics, steering data-driven recommendations for content development investments to enhance viewer engagement and investment returns

Text Summarization of News Articles Using Natural Language Processing (NLP)
• Executed an end-to-end text summarization project on 500 news articles using NLP techniques like tokenization, stop words removal, lemmatization, and TF-IDF, applying Luhn's Algorithm for sentence significance
• Devised a Python-based model to compress articles to 40% of original length, maintaining essential content, assessed through ROUGE metrics
• Analyzed machine-generated summaries with ROUGE-1 scores via frequency histograms, ensuring content quality aligns with industry standards

CERTIFICATIONS

- Python for Everybody Specialization (5-Course specialization) - Coursera
- Complete Machine Learning and Data Science Bootcamp - Udemy