Chandra Prakash Bathula

Machine Learning Practitioner | Data Scientist | Software Engineer

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EDUCATION

Saint Louis University Saint Louis, MO

Master Of Science in Computer and Information Sciences, (GPA - 3.93/4.0) August 2022 – May 2024

Coursework: Information Retrieval, Mobile and Web Application Development, Applied Analytics and Methods, Software Development, Visualization Feedback and Dissemination, Advanced Software Development.

JB Institute of Engineering and Technology Hyderabad, India

Bachelors in Electronics and Computer Engineering July 2017 – June 2021

WORK EXPERIENCE

Co-Founder & Chief Technical Officer, *EliteNotes Pvt Ltd* July 2023 – Present

- Led as Technical and Co-Founder at EliteNotes, driving innovation by leveraging **AI** and **Machine Learning LLMs, NLP** and **Generative AI** models to address intricate industry challenges and built **2 products.**
- Integrated **advanced ML models** within a **web platform** to achieve **90% accuracy** in under **10 seconds** for **video-to-text conversion, large-text summarization, audio/video transcription, translation,** and **keyword detection.**

ITS Workflow Assessment, *Saint Louis University* October 2023 – December 2024

- Formulated Saint Louis University's 3D print station workflow and developed UI for Lost and Found items section, reducing ticket processing **workload by 30%** and improving item retrieval efficiency by **over 60%**.
- Innovated QR code systems in 2 areas, boosting process efficiency and reducing manual labor by **over 35%**.

End User Research Design and iPaaS Integration, *Saint Louis University* March 2023 – May 2023

- Optimized access acceptance/denial processes with a user-friendly **UI** and implemented **automated** email notifications for high-priority requests, enhancing efficiency and collaboration reduced **workload by 15%**.

Associate Software Developer, *Qentelli Solutions Pvt Ltd. Hyderabad, India* June 2021 – July 2022

- Created websites, and web apps using **JavaScript, Node, HTML, CSS, electron.js** integrating machine learning models, **React.js**, and **Vue.js** for enhanced functionality.
- Acted as a liaison for web projects, coordinating **3rd-party** integrations and collaborating with product teams to implement new features across **20+ software systems**.
- Streamlined internal processes by automating tasks, saving employees **6 hours** monthly, and actively participated in the **software development life cycle**, gathering requirements, and building efficient tools.

Internship, *Qentelli Solutions Pvt Ltd, Hyderabad, India* March 2021 – June 2021

- Designed and prototyped high-performance web applications using **Figma,** integrating **React.js** and **Vue.js** components to optimize **front-end** functionality, enhancing the overall engagement rate, resulting in a **40%** increase in **user engagement** and a **20%** reduction in load time.
- Resolved and mitigated over **250+ front-end** and back-end issues, leveraging expertise in **React.js, Vue.js**, and **back-end** development to ensure smooth operation and user satisfaction.

RELEVANT PROJECTS

Netflix Movie Recommendations | SVD, KNN, XGBoost.

- Devised a Movie Recommendation System using **collaborative filtering** and **content-based filterin**g techniques, achieving an **RMSE of 1.075** and **MAPE of 35.02** on test data.
- Conducted a comprehensive analysis comparing **SVD, KNN**-based algorithms, **XGBoost**, and surprise-based models to achieve a **20%** increase in accuracy, ensuring interpretability and meeting latency requirements.

Content Based Recommendation System | BoW, TF-IDF, IDF, Word2Vec, IDF Weighted Word2Vec, VCG-CNN

- Engineered an apparel recommendation engine by content-based search and advanced techniques like **Bag of Words, TF-IDF, Word2Vec,** and **VCG-CNN**, analyzing over **180,000 apparel images** from **Amazon API.**
- Analyzed and trained **Word2Vec** and **CNN** models to extract **visual features** for accurate recommendations, conducting quantitative analysis to rank **TF-IDF, Average Word2Vec,** and **Bag of Words** for performance.

New York Taxi Prediction | Linear Regression, Random Forest Regressor and XGBoost

- Developed and trained ML models for New York taxi demand prediction using **Linear Regression, Random Forest Regressor, and XGBoost Regressor,** achieving less than **12% MAPE error.**
- Applied data preprocessing techniques including cleaning, **clustering,** and **segmentation,** alongside **time-binning** and **Fourier transform** for enhanced prediction accuracy.

TECHNICAL SKILLS

Core: Python, R, SQL, NoSQL Git, Tableau, JavaScript, Matlab, SPSS, SSMS Statistical Analysis, Data Visualization, Power BI, Linux, NLP

Frameworks & Packages: Pandas, NumPy, TensorFlow, PyTorch, SciPy Keras, Scikit-learn, OpenCV, Flask. **Machine Learning & AI:** Binary Classification, Regression, Neural Networks, t-SNE, PCA, CNN, Hyperparameter Tuning, Facial Recognition, XGBoost, Random Forest, Ensembles, LLMs, A/B Testing,

Web Development: HTML, CSS, React.JS, Vuetify, Hyper CLI, MongoDB, Vue.JS, Node.Js, Bootstrap, Jira.