DHRUV CHANDRA

Analyst

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SUMMARY

I am a Software Engineer with **3+ years of experience** in **developing, testing, and deploying** web applications using **Python**. Currently pursuing an **eMasters Degree (**equivalent to **Master's)** in **Data Science in Decision Making** from **IIT Gandhinagar**, I have developed my expertise in **Statistical Analysis**, **Machine Learning** and **AI**.

As a **Production Support Developer** within a service-oriented organization, I have honed my ability to **communicate effectively** and **gather comprehensive requirements** aligned with client needs. My strong commitment to **meeting deadlines** has consistently ensured the **successful** and **timely delivery.**

I am seeking a challenging opportunity to apply my **software engineering** and **data science skills** in a dynamic and **rewarding environment**.

SKILLS

Programming: Python, SQL, Software Engineering, MATLAB, R, Java.
Data Analysis and Visualization: Statistical Data Analysis and Modelling (Linear/Non-Linear Regression), Data Engineering, Tableau, Big Data.
Machine Learning and Analytics: Feature Engineering, Data Science, Predictive Modelling, Model Monitoring, Model Optimization, Regression, Classification, Computer Vision, DL (ANN, CNN, LSTM), NLP, Time Series.
Software Tools: AWS, SQL Server, Generative AI (Gen AI) – LLMs.
Frameworks: Streamlit, Flask, TensorFlow.
Soft Skills: Problem Solving, Business Understanding, Requirement Gathering, Analytical Thinking, Communication, Creativity, Critical Thinking, Production Support, Testing.

WORK EXPERIENCE

Gen AI Developer (Freelance)
mPass *July 2024 – Present*

- **Developed BlogBotter:** An AI-powered agent using **Python's Streamlit** library designed to **generate fresh blogs** or **enhance the SEO score** of an **existing one**.
- **Multi-Model Flexibility:** Integrated multiple LLMs, including **Google's Gemini 1.5 Flash**, **OpenAI's GPT-4**, and **Meta's LLaMA 3.1**, offering variability and customization based on user needs.
- **Automated Content Optimization:** Implemented a process where BlogBotter **retrieves** the **top 5 URLs** from Google Search (using Python's GoogleSearch library), analyzes content with **WordNetLemmatizer**, and **extracts the top 10 keywords** to guide the new blog's focus.
- **Performance Efficiency:** BlogBotter can generate a **new blog within 15-16 seconds** and **optimize the SEO score** of an existing blog within **19-23 seconds**, utilizing **advanced keyword extraction** and **model-driven text generation.**

Software Engineer
Coforge, Noida. *Sep, 2021 - Present*

- **Automated** the process of filling **Word documents** with **Mail Merge fields** and converting them to PDF by creating a python code script, achieving a speed of over **3,000 documents within 20 minutes**, saving 3-4 months of manual testing and **$1200 per user fees of Aspose**.
- **Developed** a **lightweight XML parser** that displayed the attributes and properties of any XML file in a tabular format, **reducing memory usage** by **27%**, as compared to the previously used application.
- Created a new "**Cancel Pending**" transaction, from scratch, which acts like a **warning for the Insurer** before processing a cancellation, which also included a custom modification of having the **Cancellation Premium** displayed during **Cancel Pending**, **reducing** the need for **actual cancellation** in more than **86%** cases.

Graduate Engineer Trainee

Coforge, Noida. *Jul, 2021 – Aug, 2021*

- **Ranked 3rd** among **30 trainees** at the bootcamp's final assessment evaluating **Insurance Knowledge** and **Duck Creek's** expertise.

QA intern

Foundit, Noida. *Feb, 2021 – Jul, 2021*

- **Reported** one of the **biggest bugs** on the v4 recruiter website that **created multiple search keywords** while **omitting a single word**.
- **Presented** a **Weekly Report** to the top management, showcasing the improvement in the **latest website** (v4) as compared to the **previous versions** (v3 and v2).

ML Intern

Univo Education Private Limited, Noida. *Feb, 2020 -Sep, 2020*

- **Deployed** several **Logistic Regression** models on **Moodle** Platform, used to **predict the students** at risk of **dropping out and/or failing an online course,** hosted on the Amity Future Academy, with an **Accuracy** and **Precision** of **over 92%.**

PROJECTS

URL Shortener

- **Shortens** a **user-given URL** which is **stored in a database** and can be later used to **redirect to the original website.**
- **Deployed** a model which would **predict the probability,** with **84.3% precision,** the likability of the user visiting the website using the **Data extracted** from the given **URL.**
- **GitHub:** https://github.com/Dhruv-Chandra/URL-Shortener.

Facial Emotion Detection *Nov, 2023 – Feb, 2024*

- Implemented a **Deep CNN** (Convolutional Neural Network) model that is able to **predict facial emotions** with a **76% accuracy** and over **79% precision**.
- Python script using **OpenCV** is also used to predict **Real-Time Facial Expressions** using device camera and the model mentioned above.
- **GitHub**: https://github.com/Dhruv-Chandra/Face-Emotion-Detection.

Big Mart Sales *Sep, 2023 – Nov, 2023*

- Created **Random Forest**, **XGBoost** and a **Bagging Regressor** that used the aforementioned models acquiring a **83% Explainable Variance (Adjusted R^2).**
- **Cleaned** and **Applied Feature Engineering** and **Computed Feature Importance** of the data using Random Forest Regressor object **reducing** the data from **16 columns to a mere 4 columns**.
- Implemented **RandomizedSearchCV** as a **Hyperparameter Tuning** technique to evaluate the best combination of Hyperparameters.
- **GitHub**: https://github.com/Dhruv-Chandra/Big-Mart-Sales.

Covid-19 Analysis *Aug, 2023 – Sep, 2023*

- **Analyzed** the medical history of around **10,48,575** people classifying their **Covid Severity** in 4 levels – **High, Medium, Low** and **No Covid.**
- Implemented an extensive **Bivariate and Univariate Analysis** to identify patterns among different features resulting in **reduction of almost 86% of the Null values.**
- Rectified the huge data imbalance using **SMOTE Over Sampling**, hence adding an additional **7,98,353 data values**.
- Acquired a **70% Accuracy** using a **Random Forest Classifier** and after computing the **Feature Importance** of the features and using the 6 most important columns the Random Forest gave a **62% Accuracy**, **indicating** that the columns ignored, although not significant individually, were **Better** together.
- **GitHub**: https://github.com/Dhruv-Chandra/Covid-19.

Heart Patients *Jul, 2023 – Aug, 2023*

- **Cleaned** and **Analyzed** around **4k+ Data Points** containing medical history of Heart Patients for **early prognosis** of **Cardiovascular Diseases**.

- Dataset contained around **1-1.5% Null Values** with no recognizable pattern, hence **dropped the Null data points.**
- **Trained and Compared** multiple Classification models (**Logistic Regression, Decision Tree, SVC**) out of which **KNN** and **Random Forest** topped the charts with **KNN** acquiring over **90% accuracy** with a **precision** and **recall** between **84-95%** and **Random Forest** with **89%** and the **precision recall between 86-92%.**
- **Stacking Classifier** trained on the above models worked even better with a **92% Accuracy** and the **precision** and **recall** between **91-93%**.
- **GitHub:** https://github.com/Dhruv-Chandra/Heart-Patients.

WORKSHOPS and CERTIFICATIONS

Deep Learning Workshop | UPES, Dehradun *July 2024*

- Participated in an intensive **5-day** workshop on **Advanced Deep Learning**, featuring sessions by esteemed faculties from IITs.
- Gained hands-on experience with cutting-edge technologies such as **Autoencoders, Transfer Learning, Transformers, and Federated Learning.**
- Achieved a **98% score** in the final assessment.
- **Certification:** Deep Learning: From Foundations to Cutting-edge Techniques.

Accelerated Computing with Nvidia GPUs Workshop | NVIDIA *June 2024*

- Completed a **6-day workshop** focused on leveraging **Nvidia GPUs** for **accelerated computing** using the **Numba compiler.**
- Developed and optimized **Deep Learning algorithms for faster processing** compared to traditional CPUs.
- Maintained an average **score of 94%** across all daily assessments.
- **Certifications:**
    - Fundamentals of Accelerated Computing with CUDA C/C++.
    - Fundamentals of Accelerated Computing with CUDA Python.
    - Fundamentals of Deep Learning using CUDA.
    - Applications of AI for Predictive Maintenance.
    - Building Transformer-Based Natural Language Processing Applications.

Azure Fundamentals (AZ - 900): Microsoft *Feb, 2022*
Machine Learning on AWS: AWS *Sep, 2022*
Data Science: Amity Future Academy *Apr, 2020*
Deep Learning: Amity Future Academy *Apr, 2020*

EDUCATION

Indian Institute of Technology (IIT), Gandhinagar, Gujarat *May, 2024 - Present*
eMasters (similar to M. Tech.) - **Data Science for Decision Making**.

Amity University, Noida, Uttar Pradesh *Jun, 2017 – Jul, 2021*
B. Tech. (Bachelors of Technology) **Computer Science**, 7.22 CGPA.
(**Electives**: **Machine Learning, Deep Learning, Computer Vision and AI**).

D.A.V. Model School, Durgapur, West Bengal *Jun, 2015 – Mar, 2017*
Computer + Mathematics, 84%.

D.A.V. Model School, Durgapur, West Bengal *Jun, 2013 – Mar, 2015*
Computer + Mathematics, 8.8 CGPA.