PRADYUMNA BADA

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EDUCATION

University of Illinois, Urbana - Champaign | GPA 3.8/4   **May 2025**
Master of Science, **Advanced Analytics**
Coursework: Big Data Analytics, Data Mining, ML Cloud (**AWS**), Deep Learning, Machine Learning.

JSS Science and Technology University | GPA 8.5/10   **Nov 2020**
Bachelor of Engineering, Industrial Engineering
Coursework: Advanced Calculus, Linear Algebra, C Programming, Operations Research, Statistical Quality Control.

SKILLS

Coding: Python, SQL (Oracle, MySQL, PostgreSQL), **NoSQL (MongoDB),** C Programming, COBOL, Jenkins, GITLAB, **Azure**, Docker.
Data Analytics: Pandas, Numpy, Excel, Matplotlib, Power BI**,** Tableau, PySpark*,* Prophet, Scikit-Learn, **FAISS**, Synapse Analytics**.**
Other Skills: Insurtech Experience, **JIRA**, Azure AI Foundry, **Django**, Flask, Web Scraping (Beautiful Soup), Power Query.

PROFESSIONAL EXPERIENCE

Cline Center for Advanced Social Research | Research Assistant   **Sep 2023 - Present**
• Leveraged LLMs to extract structured data from unstructured text (news articles), specifically tracking police use of lethal force.
• Specialized in data cleaning, analysis, schema design, **_DDL_**, _DML_. Built a national dashboard (_[Link](#)_) using _MySQL_ & _Power BI_**.**
• Built retrieval models using embeddings for ranking data and clustering articles to automate the data extraction process.

Seagate Technology | Data Analyst Intern   **May 2024 – Aug 2024**
• Analyzed Volume Data using statistical tools and data visualization to help characterize emerging memories.
• Developed **_Python_**-based automation & reporting systems, utilizing **_Jenkins_**, **_GitLab_**, & other technologies to streamline operations.
• Calculated failure metrics, including Bit Error Rates across address levels, and modeled CFR to predict potential failures.

RailTEC at Illinois | Summer Research Intern   **May 2023 - Aug 2023**
• Implemented **_Big Data Analytics_** to ensure safe railway operations, by using _LRAIL_, an AI-based system for Visual Track Inspection.
• Analyzed periodic data to track & forecast the health of rail components by leveraging **_PySpark_** and **_MS Azure Synapse Analytics_**.
• Visualized data with **_Power BI_** and _Python_ to provide actionable insights for efficient decision-making.

Sapiens International Corporation | SQL Developer   **Mar 2021 - Nov 2022**
• Enhanced our Insurtech product using _Oracle **SQL**_, and **_ETL_**, which helped companies administer legacy **_Insurance_** products.
• Expertly managed datasets encompassing policy, claims, customer, and fund prices, and crafted complex SQL data fix scripts
• Developed reporting interfaces using SQL and **_Shell Scripting_**, including 'ECASS', a cache facility designed for client's actuarial team.

ACADEMIC PROJECTS

Stock Price Forecasting Using News Sentiment Analysis | Python, Streamlit, Prophet.
• **Goal:** Develop an interactive web app to forecast stock prices by integrating sentiment analysis of financial news**.**
• Used a pretrained model for sentiment analysis and Prophet for forecasting, delivering a dynamic dashboard with real-time plots.

Natural Language Processing with Disaster Tweets | Pytorch, Pandas, RoBERTa.
• **Goal**: Predicting disaster-related tweets to automate Twitter monitoring for disaster relief organizations and news agencies
• Implemented various ML models & word embeddings, including BOW, tf-idf, GloVe, BERT, and RoBERTa to achieve 81.1% accuracy.

Displacement and Strain Measurement using Computer Vision | Python, Pytorch, TorchVision.
• **Goal**: To harness AI for the precise measurement of displacement and strain in objects under load, facilitating real-time monitoring
• Developing CNNs, and other DL models to detect displacement between pair of speckle images.

Hypothesis Test | Python, SciPy
• **Goal**: To assess the contrasting effects of a recession on university towns as compared to non-university towns in the USA.
• Used pandas for preprocessing and SciPy for hypothesis testing.

LEADERSHIP & INVOLVEMENT

• Ensured timely meal service for **hundreds** of students daily through food servicing, dish cleaning, and table sanitation.
• Led the development team in resolving high-priority production issue in the absence of senior team members.
• Completed certification courses like Applied Machine Learning, Applied Plotting & Data Representation in Python, and more.
• Organized multiple treks to the Great Himalayan Ranges for groups of more than 10.
• Directed and acted in short films, cover songs, and created **travel vlogs**. _[Video1](#), [Video2](#), [Video3](#), [Video4](#), [Video5](#)_