Neeha Agrawal

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Summary

Analytical and detail-oriented **Data Scientist & Analytics Engineer** with hands-on experience in developing data pipelines, machine learning models, and business intelligence dashboards. Proficient in **Python, SQL, Power BI, and AWS/Azure** with expertise in **data wrangling, predictive analytics, and ETL automation**. Proven ability to translate business requirements into scalable data solutions—improving reporting efficiency and driving data-driven decision-making. Passionate about leveraging **AI, cloud, and analytics** to deliver actionable insights and optimize performance across fast-paced environments.

Education

Indiana University Bloomington Aug 2024 – May 2026
Master of Science, Computer Science *Bloomington, Indiana*

Technical Skills

Languages: Python, SQL, R, Java, C/C++
Frameworks & Libraries: Pandas, NumPy, Scikit-learn, TensorFlow, PyTorch, OpenCV, NLTK, LangChain
Databases: MySQL, PostgreSQL, MongoDB, DynamoDB, Oracle, Redshift, Data Lakes, Data Warehouses
Visualization & Reporting: Tableau, Looker, Power BI, Incorta, Streamlit
Software & Web Development: JavaScript (ES6+), TypeScript, HTML5, CSS3, React.js, Next.js, Node.js, Express.js, Flask, FastAPI, Spring Boot, RESTful APIs, GraphQL, Redux Toolkit, AJAX, JSON, Responsive UI/UX Design, API Integration, Agile/Scrum Methodologies
Machine Learning & AI: A/B Testing, Generative AI (ChatGPT), NLP, XGBoost
Data Engineering & ETL Tools: Apache Airflow, Hadoop, PySpark, Databricks, Docker, CI/CD Pipelines, Kubernetes, Redis
Cloud Platforms: SageMaker, GCP (BigQuery), Azure Certified (AZ-900), AWS (S3, Lambda, Glue, EMR)
Others: MS Excel (VLOOKUP, Macros, VBA, INDEX, Pivot Table), Alteryx, Git/GitHub, Data Storytelling

Experience

Indiana University Aug 2025 – Present
Associate Instructor – Software Engineering *Bloomington, Indiana*
- Mentored a class of **150+ students** for B535 **Software Engineering**, assisting with assignments, **project reviews**, office hours and provided **detailed feedback on code quality, documentation, and design patterns.**
- **Guided** teams through the **software development lifecycle (SDLC), including requirements analysis, design, implementation, testing, and deployment.**
- **Collaborated** with the instructor to develop assignments, project rubrics, and coding labs focused on **agile methodologies, version control**, and **software design principles.**

Skechers USA May 2025 – Aug 2025
Data Science & Analytics Intern *Manhattan Beach, California*
- Transformed **business requirements** into **analytical solutions** by **designing interactive dashboards** for sales, inventory and product positioning using **Incorta, Databricks & LightUp;** synthesized KPIs across **10+** disparate data sources with advanced SQL logic.
- Managed and processed **multi-terabyte, multi-source** datasets, executing **Spark-**based reconciliation pipelines that ensured **99.8% data accuracy** and improved **data consistency checks by 25%.**
- Introduced a **metric-driven flagging mechanism** to **monitor anomalies** and boost trust in reporting pipelines.
- Delivered clean, well-documented code and technical documentation to support reporting tools and **cross-functional transparency.**

Nextun Technology Private Limited May 2023 – Jul 2024
Software Developer *Ahmedabad, India*
- Developed an interactive data analytics tool using **Django, Python, and JavaScript**, enabling **real-time data visualization** through dynamic dashboards & graphs.
- **Optimized data pipelines,** integrating multiple data sources to enhance accuracy & decision-making for end users.
- Reduced analysis delays by **28%** by streamlining data transformation and reporting workflows.
- Collaborated with & earned recognition from data scientists and engineers to implement scalable data processing solutions, ensuring seamless data accessibility and usability.

Projects

Hoosier Helper – AI Campus Chatbot | Live Project Sep 2025
- Developed **AI-powered chatbot** using **React.js** serving **105+ IU buildings** with **conversational interface & NLP.**
- Built **context-aware chat system with conversation memory, location-based recommendations, and real-time responses** for campus navigation queries.
- Designed **responsive UI** with dark mode, chat export, and Google Maps integration for seamless user experience.

AI-Powered Plant Disease Detection Jan 2024
- Engineered an **AI-driven deep learning model** for detecting apple leaf diseases (cedar rust, apple scab, black rot), achieving **92% classification accuracy** and supporting early intervention for sustainable agriculture.
- Implemented **Vision Transformers (ViT), ResNet, & EfficientNet** for accurate classification, enhancing early disease detection.
- Utilized **TensorFlow & PyTorch** to train models on an augmented Plant Disease Dataset, improving **detection precision.**
- Enabled **data-driven** crop monitoring and disease prevention by deploying **real-time analytics dashboards**, empowering agricultural teams to reduce crop loss risk by **18%.**

Cancer Detection With Machine Learning Approach | Published Paper link