# Vandana Sinha

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# EDUCATION

#### University of North Texas

Texas, United States

Master of Science in Computer Engineering; GPA: 4.0/4.0

Aug 2021 - May 2023

• Coursework: Deep Learning, Big Data, Neural Networks, Natural Language Processing, Computer Algorithms

## SKILLS SUMMARY

- Programming Languages: Python, R, SQL, Git
- Databases: Microsoft SQL Server, Oracle 11g, MySQL
- Machine Learning: Linear regression, Clustering, SVM, Random Forest, Predictive Modeling, Time Series Forecasting
- Data Reporting: SAP BO, Power BI, Tableau, Google Data Studio
- Tools: Confluence, Microsoft Office, JIRA, RStudio, GCP, AWS, Snowflake
- Soft Skills: Storytelling, Collaboration, Leadership, Time Management, Innovation

### EXPERIENCE

#### San Jose University

United States

Data Science Research Analyst

Jun 2023 - Present

- o Federated Learning Framework: Architected high-performance federated learning framework using PySyft and TensorFlow, processing 10x more data.
- o Generative AI Models: Developed state-of-the-art Generative AI models using transformer architectures (GPT-3, BERT) and neural rendering techniques.
- Bias Mitigation Algorithms: Integrated bias mitigation algorithms to improve fairness and reduce harmful outputs.
- User Studies: Spearheaded user studies to evaluate real-world impact of AI solutions.

#### **Intel Corporation**

United States

 $Solution\ Architect$ May 2022 - Dec 2022

- o AI and ML Integration: Integrated deep learning models (CNN, RNN) into hardware platforms, improving customer engagement.
- Customer Insights: Enhanced customer satisfaction through data-driven analysis and quantitative techniques.
- Cross-Functional Collaboration: Collaborated across teams, applying data-driven decision making to solve business
- Recognition: Recognized for pioneering AI-driven processes reducing customer complaints by 20%.

Crisil

New York

- Sep 2017 Aug 2021 Senior Data Scientist
  - Fraud Detection: Developed ML models to detect fraudulent activities, reducing incidents by 12%. • Time Series Forecasting: Applied time series forecasting to drive profit increases in trading strategies.

  - o Marketing Mix Models: Built marketing mix models leveraging diagnostic insights for data-driven decision making.
  - SQL Scripts: Built SQL scripts using BigQuery for creating reports, increasing productivity by 18%.

#### **Nokwood Consulting Services**

India.

Data Warehouse & Digital Marketing Analyst

Aug 2011 - Aug 2017

- o Data Cleansing: Executed data cleansing and wrangling techniques using Informatica PowerCenter, improving data quality by 16%.
- o Digital Marketing Optimization: Optimized marketing campaigns, boosting click-through rates by 15% and ad efficiency by 20%.
- Automated Reporting: Developed automated dashboards using Power BI, enhancing data accessibility by 10%.
- Mentoring: Mentored junior data scientists in Python programming and machine learning techniques.

**Hewlett Packard** Data Engineer

India Aug 2007 - Jul 2011

o Real-Time Issue Resolution: Architected data mapping strategies using Unix shell scripting, meeting stringent

- Inventory Optimization: Engineered inventory optimization algorithm, improving system performance by 17%.
- ETL Integration: Implemented Informatica PowerCenter ETL tools, reducing downtime and boosting efficiency.
- o Automation Initiatives: Spearheaded development and automation initiatives using Unix shell scripting, increasing HP's market share by 10%.

#### Projects

- Sentiment Analysis using Deep Learning: Implemented CNNs and LSTM for sentence-level sentiment classification, boosting accuracy by 22%.
- Brain Tumor Detection: Trained ML models for brain tumor detection in MR images, achieving 89% accuracy.
- Meal Planning App: Developed a cross-platform meal planning and shopping app, adopted by 10,000+ users.
- CPU Scheduling Simulation: Developed CPU scheduling algorithms, improving CPU utilization by 30%.

#### Honors and Awards

- Intel Incubation program: Awarded for innovative venture ideas and accomplishment.
- Star Performer: Recognized for problem-solving skills, commitment, and outstanding performance.
- HP Recognition: Honored for exceptional work at HP, including an E- Award.