

# Vandana Sinha

Portfolio: Vandanasnh.com

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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*
    - Federated Learning Framework:** Architected high-performance federated learning framework using PySyft and TensorFlow, processing 10x more data.
    - 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*
    - 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 challenges.
    - Recognition:** Recognized for pioneering AI-driven processes reducing customer complaints by 20%.
- Crisil** New York
  - Senior Data Scientist* *Sep 2017 – Aug 2021*
    - 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.
    - 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*
    - Data Cleansing:** Executed data cleansing and wrangling techniques using Informatica PowerCenter, improving data quality by 16%.
    - 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** India
  - Data Engineer* *Aug 2007 – Jul 2011*
    - Real-Time Issue Resolution:** Architected data mapping strategies using Unix shell scripting, meeting stringent deadlines.
    - Inventory Optimization:** Engineered inventory optimization algorithm, improving system performance by 17%.
    - ETL Integration:** Implemented Informatica PowerCenter ETL tools, reducing downtime and boosting efficiency.
    - 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.