REET YOGESH KOTHARI

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EDUCATION

Master of Science in Computer Science — **September 2024 – June 2026**
Dartmouth College – Hanover, NH — ***GPA: 4.0***

Bachelor of Science in Computer Science, Minor in Business Administration — **September 2020 – March 2024**
University of Washington – Seattle, WA — ***GPA: 3.7***

WORK EXPERIENCE

Research Assistant – Large Language Models — **January 2025 – Present**
Pervasive Intelligent Systems (Persist) Lab — ***Hanover, NH***
- Leveraged chain-of-thought and multi-agent solutions to enhance detection of nuanced conflicts in health advice.
- Refined dataset and generated synthetic samples, addressing issues with data imbalance and model robustness.

Graduate Teaching Assistant – Machine Learning — **October 2024 – Present**
Dartmouth College — ***Hanover, NH***
- Conducted weekly office hours and one-on-one session, boosting material understanding and assignment completion.
- Guided students in balancing interpretability, generalization, and data quality tradeoffs to improve model design.
- Facilitated interactive student tournaments, enhancing engagement and collaborative skills across 50+ participants.

Data Scientist — **April 2024 – August 2024**
Dozee Health — ***Bangalore, India***
- Collaborated with subject-matter experts to develop interpretable AI models for predicting patients' AHI using BCG data.
- Optimized autocorrelation and power spectral features, improving apnea annotation reliability with a 0.6 Cohen's Kappa.
- Reduced processing errors by 15% through JJ and RR interval synchronization for BCG and PSG data alignment.

Data Engineer Volunteer — **October 2023 – February 2024**
Develop For Good — ***Seattle, WA***
- Architected ETL pipelines to normalize database schema, reducing query complexity and improving data access by 30%.
- Built a Redshift-based data warehouse, streamlining a student reporting system to foster improved teacher-student interaction.
- Implemented data validation and cleaning procedures to ensure data integrity and cost efficiency, reducing manual effort by 50%.

Embedded Software Intern — **April 2023 – August 2023**
Perasia Technologies LLC — ***Okemos, MI***
- Trained a neural network to classify heartbeats and detect Arrhythmias patterns, achieving 98.4% test accuracy.
- Improved R-peak detection by 10% through signal filtering techniques, enabling more precise heart rate variability analysis.
- Reduced processing latency by 20% through efficient integration of serverless architecture and data preprocessing pipelines.

PROJECTS

Best Use of Data Award – NASA Space Apps Hackathon Seattle — **Pandas, Tensorflow**
- Engineered features from time-series solar wind data to provide early geomagnetic storm warnings up to 45 minutes in advance.
- Achieved 90% precision in identifying high-impact solar wind peaks and laid the groundwork for more robust models.
- Backtested against historical solar events, reducing false negatives by 25% compared to baseline methods.

Decoding IPO Success – Data Science Capstone — **Scikit-Learn, Seaborn | Link**
- Ideated a 58% ROI IPO investment strategy in a simulated financial environment using micro and macroeconomic features.
- Reduced risk exposure of naïve retail investors by 87%, using a 50% confidence interval version of XGBoost models.
- Enhanced a 1005 IPO Nasdaq dataset using Yahoo Finance API and SEC filings, improving overall data quality by 12%.

TECHNICAL SKILLS

Languages: Python, Java, JavaScript, SQL, C++, R, HTML/CSS
Analytical Tools: Pandas, PyTorch, Hugging Face, PySpark, Scikit-Learn, Seaborn, NumPy
Development Tools: AWS, Kubernetes, Node.js, React, Socket.io, Github Actions
Certifications: IBM DevOps, Cloud, and Agile Foundations Specialization, Hugging Face NLP Course