

Kushagra Verma

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Education

New Jersey Institute of Technology

September 2023 – Present

New Jersey, USA | Freshman Highlander Scholarship & Highlander Achievement Scholar.

BSc. Computer Science | Minor in Mathematics of Finance & Actuarial Sciences. (Expected Graduation: December 2026)

Ridge High School

June 2023

Basking Ridge, NJ | GPA: 4.45 | National Honors Science Society | AP Scholar with Distinction.

Experience

Co-Founder | Nexuzforge Private Limited

January 2023 – Present

- Reduced system downtime by 40% through cloud-based architecture optimization and automated deployment pipelines.
- Developed 5+ full stack applications for clients in different domains of EdTech, CRM, Fashion and B2B.
- Increased client retention by 30% through optimized UI/UX improvements and backend scalability enhancements in 15+ B2B products.
- Deployed AI-driven analytics for businesses, boosting their operational efficiency by 35%.

Data Analyst | Mathnasium Martinsville

May 2024 – August 2024

- Developed data-driven student performance models, leading to a 20% improvement in learning outcomes.
- Optimized data retrieval processes, cutting query response time by 30% and improving analytical accuracy.

Research Author | Independent

August 2022 – August 2023

- Conducted research on biogas production optimization, improving efficiency by 15%.
- Published in Harvard Alumni Network (JEI), validated by Ph.D. scholars at Harvard Med and Duke.

Business Intelligence Researcher | Nawvel

May 2021 – August 2021

- Curated insights from 100+ hours of podcasts and business case studies, improving team decision-making by 25%.

Projects

Carbonforge

- Built a blockchain-powered system to mint and trade verified carbon credits as NFTs, reducing transaction time by 40%.
- Integrated web scraping from Verra Registry. Used IPFS and Web3 storage, ensuring 98% data accuracy.

ML-Based Sentiment Analysis for Stock Market Predictions:

- Developed an NLP model that analyzed 1M+ tweets to predict stock volatility with 78% accuracy.
- Identified sentiment trends that led to 2-4% fluctuations in stock prices, helping traders optimize strategies.

ML-Based Volatility Prediction for Quantitative Finance

- Built an LSTM-based deep learning model to predict intraday stock market volatility with 82% accuracy.
- Processed 5+ years of historical price data and integrated real-time market data, reducing errors by 15%.

Monte Carlo Simulation in C++

- Simulated 1M+ financial scenarios to optimize option pricing, improving risk assessment models by 18%.
- Reduced computational overhead by 20% using optimized random sampling techniques.

Power BI Business Dashboard

- Created real-time analytics dashboard that decreased decision-making time by 35%.
- Integrated predictive modeling, leading to a 10% improvement in business forecast accuracy.

Vizion Z Renewables

- Designed a decentralized biomass energy model projected to double India's energy production.
- Modeled unit economics and satellite mapping, projecting an increase in dairy farmer's income by 80%.

Certifications & Awards

- URI Seed Grant (\$3000) Recipient – Research Phase 2 under Dr. SangWoo Park (only freshman accepted).
- YTBC Next100 Entrepreneurs, Climate Launchpad India Round Finalist, Entrepreneurship Campus – Top 10 Ideas (Youth)
- Future Innovators – Children's Science Foundation.

Skills

- Data Science/ML:** Python, NumPy, Pandas, SciKit, Matplotlib, Sci-Kit, Seaborn, TensorFlow, PyTorch, NLP, Deep Learning, XGBoost, Clustering, Prompt Engineering, MATLAB, Time Series Analysis, Optimization, Monte Carlo Simulations, Markov Chains, PowerBI.
- Development:** JavaScript, React.js, Node.js, Express.js, Three.js, Tailwind.CSS, GSAP, Full Stack, Systems Design, AWS, Docker, Firebase, Git, CI/CD, Agile & Scrum, API Development, Web Scraping, Multithreading & Concurrency.
- Languages:** English, Hindi, Mandarin.