# Kapil Wankhede

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#### Profile

Social Data Scientist, entrepreneur, and teacher at Nalanda Academy, skilled in strategic planning, public relations, and organizational management. Proven track record in building data-driven solutions, financial analysis, model risk management, leveraging generative AI, and overseeing campus construction.

#### **EDUCATION**

• Udacity

Nanodegree in Applied Data Science

Certificate

Jan 2020 - May 2020

Illinois Tech

MS in Finance

Aug 2015 - May 2017

Dr. B. A. Tech. University, Lonere

B. Tech in Petrochemical Engineering

Raigad, India

Aug 2008 - May 2012

### Professional Work Experience

## Nalanda Academy

Co-Founder and Assistant Director

Wardha, India

Jul 2013 - Present

- Transformational Leadership: Drove the Academy's mission as a core member of the executive team, enabling inclusive quality education for underrepresented groups; mentored 1800+ students into top national and international universities.
- Strategic Growth & Partnerships: Led multi-year strategic planning and donor engagement campaigns, securing resources to scale enrollment from dozens to 18 000+ digital learners, unlocking opportunities for tribal and rural youth.
- Innovative Initiatives: Designed and launched India's first community-based Abhiyan Libraries (15+) and a full-fledged online learning platform—digital-nalanda—impacting thousands across regions.
- Organizational Development: Pioneered new models in staff recruitment, teacher training, community mobilization, and online/offline curriculum development; managed large educational events, workshops, and advocacy initiatives.
- Infrastructure and Tech Adoption: Overseeing construction of Nalanda Abhiyan Campus; introduced data-driven decision making and generative AI applications for institutional excellence.
- Community Impact: Championed outreach and policy advocacy, empowering students through scholarships, capacity building, and social justice programs; contributed to expanded alumni reach and international collaborations.

### Sanghamitra Business Incubator

Wardha, India

Co-Founder and Chief Operations Officer

Jan 2019 - Dec 2021

- Founded an incubator with a focus on building socially conscious businesses. Responsible for identifying, launching, operating, and scaling operations.
- Led overall operations management, overseeing product design, market research, vendor sourcing, supply chain management, quality control, sales and marketing, order fulfillment logistics, finance, and store operations to ensure the incubator's vision is realized.
- Successfully navigated major challenges posed by the COVID pandemic, leading to the launch of several business lines and products, including [www.sanghamitra.com], e-commerce website [www.sanghamitra.store], partner platform [www.digitalnalanda.com], expansion to multiple locations.
- Hired and trained new employees, creating a working environment for informed risk-taking and rapid skill-building through real-world engagements, multidimensional exploration, trial and error experimentation, and data-driven decision making.
- Trained local talents for data collection and analysis to support product development and improvement. Developed and maintained Streamlit apps for analyzing data from *Air Coolers* and *Water Filters*.

• Established an engineering lab and library, organized education and healthcare awareness workshops in the community. [Events]

## Mitsubishi UFJ Financial Group Union Bank

NYC, USA

Quantitative Financial Analyst

Jun 2017 - Sep 2018

- Conducted full model validation, including conceptual soundness, data analysis, computer-based implementation, regulatory and governance, and documentation, of a regulatory model that calculates counter-party credit risk.
- Handled a database of the bank's 900 models and non-models for tracking their status and outstanding issues and regularly notified team members.
- Performed independent validation of Economic Capital VaR model and scorecard-based credit risk rating model, including statistical testing to validate the accuracy of model output and ratings.
- Validated various market and credit risk models, including IRS, CDS, and swap pricing models using Bloomberg as a benchmark.

## AI/ML EXPERIENCE

## Data Analyst/Scientist

Jan 2016 - Current

Self Directed Learning

Gained all-round skills and implementation experience in end-to-end ML/AI product development cycle.

- o Developed proficiency in building, optimizing, and comparing machine learning models, deploying solutions via cloud-based platforms. Built several projects as part of the world class Data Scientist Nano-degree from Udacity, Applied Data Science Lab from WorldQuant University and AI for Good specialization from www.deeplearning.ai along with Agile Software Developer from Udacity.
- Disaster Response Webapp: Leveraged natural language processing to develop a web application streamlining emergency response. Enabled emergency personnel to input messages and receive accurate classification results across various categories. [App] [GitHub]
- Diabetes Prediction Using ML: Deployed an optimal supervised learning algorithm for diabetic prediction ML model through performance evaluation. [App] [GitHub]
- European Option Price Calculator: Created the European Option Price Calculator, a tool for calculating prices and Greeks of options using the Black-Scholes-Merton (BSM) model. [App] [GitHub]
- A/B Testing at WorldQuant University: Employing chi-square tests to assess the impact of email campaigns on program enrollment. Developed custom Python classes for ETL processes and implemented a three-tiered design pattern to create an interactive data application.
- Fetal Health Classification Model: Developed a model to classify fetal health, contributing to the prevention of child and maternal mortality. Applied advanced feature extraction techniques from Cardiotocograms for precise predictions. [GitHub]
- Financial Derivative Project: Designed a commodity-linked note and used MATLAB to calculate its fair value. Implemented variance reduction techniques to enhance Monte Carlo simulation results.[Code][Report]

## SKILLS SUMMARY

- Programming Languages: Python, SQL, R, HTML, CSS, JavaScript, VBA, MATLAB
- Machine Learning: Pandas, Numpy, Plotly, Scikit-Learn, NLTK
- Tools: MS Office, MS Power BI, Git, Bloomberg, Workbench
- Frameworks: Agile, ReactJS, ExpressJS
- Cloud Computing Platforms: AWS, Streamlit

#### SCHOLARSHIPS/AWARDS

- Recipient of the highly competitive Government of India's scholarship to pursue a Master's degree at a globally top-ranked university (2015).
- Next Generation Tech Booster Scholarship for Agile Software Developer program from Udacity (2023).