Jenil Shah

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EDUCATION

University of Texas at Austin | Masters in Computational Science, Engineering and Mathematics *[Aug '23- Present]*
Courses: Linear Algebra, Mathematics in Deep Learning, Tools and Techniques of Computational Science

Indian Institute of Technology, Bombay | Dual Degree Bachelor & Master of Technology *[Jul '14 - Jul '19]*
Majored in Energy Science and Systems Engineering scoring **8.52/10,** minored in Computer Science

KEY PROJECTS

Vanadium Redox Flow Batteries, Master's Thesis | *Guide: Prof Dayadeep Monder* *[May'18 - Jul'19]*
- Developed a 3D model of a single electrode of a VRFB using COMSOL's FEM solver and mass, energy and momentum conservation by applying Nernst Planck, charge conservation and Brinkman equations
- Performed sensitivity analysis on the operating conditions like current, State of Charge (SoC) and concentration
- Achieved an overall grade of **9.58/10** on the master's thesis

Solar Tracking System, **Course Project** | *Guide: Prof.Chetan Solanki, DESE, IITB* *[Jan '15 - Apr '15]*
- Designed a solar tracking device to measure intensities at different angles to maximise intensity at a given time

Morse Code Bot, **Course Project** | *Guide: Prof. Kavi Arya, CSE, IITB* *[Jan '15 - Apr '15]*
- Using C++, programmed an Atmega bot to move in the direction based on the instructions in Morse code

PROFESSIONAL EXPERIENCE

Alpahgrep Securites | *Quantitative Analyst Research & Trading, Bengaluru* *[Apr'23 - Aug'23]*
- Improved performance of quantitative strategies through reducing slippages by implementing execution algorithms
- Developed a C++ framework for volume weighted average price (VWAP) and execute trades to realize this price

Goldman Sachs | *Strategy Associate, Prime Portfolio Strats, Bengaluru* *[Feb '21 - Apr '23]*
- Designed a quantitative model for **attribution** of prime brokerage margin, providing a **position level breakdown** of overall client margin, with **scenario** level views for macro, sector, relative value, concentration and liquidation costs
- Developed a **systematic price reconciliation** report to compare the desk pricer to market data. Analysed the shortcomings of desk pricing models across equity and credit asset classes covering **bonds, options and warrants**
- Improved **desk warrant pricing model** to use implied volatility from market price in specific pricing environments

Trexquant Investments LLP | *Quantitative Researcher, Gurugram* *[Jul'19 - Oct'20]*
- Developed & backtested **market-neutral long-short equity portfolios** of up to **$10 million** in the US, EU & Asia using fundamental, technical, alternative, industry-specific and factor-based (momentum, value, size) signals
- Implemented multiple regression and SVM prediction algorithms on **Python** using fundamental, option & news data

SCHOLASTIC ACHIEVEMENTS

- Cleared **Financial Risk Management** Exam Parts I and II *[2021]*
- Cleared **CT1 (Financial Mathematics), CT3** (**Probability & Statistics**) by the Institute of Actuaries of India *[2018]*
- **Lab Assistant** for Energy Systems Lab for Boiler & Heat Exchanger, **guiding 30 students** *[2018]*
- **Semester Exchange** to École Centrale de Nantes, **France** for a period of 6 months *[2017-18]*
- **All India Rank 1** in Actuarial Common Entrance Test (ACET), India *[2015]*
- **All India Rank 1** in **BITSAT**, among 180,000 students *[2014]*
- Awarded the prestigious **NTSE & KVPY fellowship** by NCERT, Govt of India *[2012]*

POSITIONS OF RESPONSIBILITY

Institute Sports Web Nominee | *Students' Gymkhana, IITB* *[Apr'16 - Mar'17]*
- Completely overhauled the frontend of the IIT Bombay sports website for managing sporting affairs catering to **10,000** students **quadrupling** the number of hits on the website & increasing the number of profiles by **200%**

Editorial Board Member | *Insight, IIT Bombay* *[Apr'18 - Mar'19]*
- Part of a 20-member team leading **200+ student journalists** responsible for comprehensive student newsletter circulated among **10,000+** campus residents & an online reach of **400,000+**

SKILLS

Coding Python, C++, Slang, Java, HTML, CSS, PHP, JS	**Languages** *English, French, Hindi*
Interests *Reading	Age of Empires 2	History	Philosophy	Travelling (15 countries)*	**Softwares** *MATLAB, COMSOL*

CO-CURRICULARS

Sports	● **Basic Mountaineering Course,** Govt of India; scaled the Balachandra Peak (**15,000 ft**)	*[2015]*
	● Completed **IIT Bombay (11k) run** along with 6 biathlons (cycling+running) at IIT Bombay	*[2016]*
Social	● Collaborated & participated: **Cyclothon: Pedal for Diabetes,** reaching **50,000+** people	*[2016]*