



Naresh Balamurugan
Metallurgical Engineering and Materials Science
Indian Institute of Technology Bombay

190110051
B.Tech.
Gender: Male
DOB: 6/15/2000

| Examination | University | Institute | Year | CPI / % |
|-------------|------------|------------|------|---------|
| Graduation | IIT Bombay | IIT Bombay | 2023 | |

Pursuing Minor degree at the **Centre for Machine Intelligence and Data Science**, IIT Bombay

SCHOLASTIC ACHIEVEMENTS

- Received the International **FIS Scholarship Program** worth 3000 USD for top **300** students worldwide ('19)
- Recipient of the prestigious **Ramanujan Scholarship** and Gold Medal in JMO conducted by IME ('12)
- Achieved a state rank - **3** and national rank - **20** in National Cyber Olympiad supervised by SOF ('14)

PROFESSIONAL EXPERIENCE

Quant Strategist Intern | Alpha Alternatives Holdings LLP (May'21-Jul'21)

Received a **Letter of Recommendation** from the **Head of Quant Business**

- Overhauled the development of financial results strategy and engulfed direction using options **OI** with **1.3** sharpe
- Executed the code of collecting live bid-ask data using XTS API and optimized by reducing disk usage by over **70%**
- Assessed minimum variance portfolio and subsumed shrinkage covariance matrix for **3** Indian tickers in NSE500
- Researched on the **IV term structure** of options to obtain information on **IV** rise solely due to result declaration

Algorithmic Trading Intern | SMC Global Securities Limited (Dec'20 – Jan'21)

- Modelled a functional python-based options **back-testing** model feeding valuable insights on past performance
- Devised a back-test on multiple confirmation to generate **signals** in sector index using top **4** weighted stocks
- Optimized the strategy based on **volatility** and developed an algorithmic trader for automated weekly execution

POSITIONS OF RESPONSIBILITY

Core Team Member | Student Alumni Relations Cell, IIT Bombay (May'21-Present)

Leading Design Portfolio; Part of **11** core team members to foster professional relations between **60k+** Alumni and the Institute

- Chairing a team of **4 Design Coordinators** to supplement the association working in coherence with Dean ACR
- Assisting in aggressive expansion of SARC's social envelope to capture platforms like Facebook, LinkedIn and Twitter by creating visual content for publicity of various events and initiatives, with a budget of **INR 1.2M**
- Ideated and facilitated theme-based publicity of annual Phonathon generating a **50%** y-o-y rise in volunteers

Sector Head | Institute Investment Team (May'21 – Present)

Orchestrating a team of **21** enthusiastic students focused in finance and investment with a vision to create student run fund

- Delivering actionable insights from analysis of **5 sectors** supported by technical and fundamental analysis
- Gaining real-time industry exposure on Indian financial markets through professional training from **Zerodha**
- Co-ideated a revamped **3-tier** hierarchy team structure to ensure efficient management of the team's fund

KEY PROJECTS

Neutral Ratio Spread Strategy | Self-Project (Jun'20 – Nov'21)

- Engineered a **quantitative** weekly trading strategy using bank-nifty derivatives generating **42%** annualized ROI
- Back-tested for combinations of holding period for a **1-year** duration and analyzed the condition of best returns
- Optimized the strategy to suppress maximum drawdown to **2%** of initial capital and retain risk-reward ratio

Autonomous Poker Dealer | Institute Technical Summer Project (Mar'20 - Jul'20)

- Designed and simulated an **integrated bot** capable of shuffling and dealing cards identical to real poker dealers
- Embedded motor driven **robotic arm** and lead screw mechanism to facilitate interactive card dealing to **8** players
- Developed a **PCB** design on Eagle software and an arduino code to systematically control bot's motor functions

EXTRACURRICULARS

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|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Trading | <ul style="list-style-type: none">Managing portfolio worth INR 1.2M using options strategies and positional strategies in equitiesPursued 'Equity Portfolio Management' course offered by Alphabeta and NSE Academy |
| Sports | <ul style="list-style-type: none">Endowed with Gold Medals for rapid chess and football in annual department sports daySemi-finalist in Inter hostel football General Championship amidst 10+ competing hostels |
| Music | <ul style="list-style-type: none">Level 2 honors in practical examination in Electronic Keyboard Grade 5 by Trinity College London |
| Others | <ul style="list-style-type: none">Abacus & Arithmetic: National Runner-up 5 State Champion International Ordinary Grade 4Accorded runner-up 1 in National Handwriting Olympiad and rewarded with cash prize INR 25kBestowed with Best Dramatic Video in Silver Edit competition among 9 participating IIT'sLanguages: Python, C, C++, R Softwares: Photoshop, Premiere Pro, AutoCAD, Solidworks, Eagle |