

## Pratik Poddar

pratikpoddar05051989@gmail.com

DOB: May 5, 1989

+91-9819970477

Mumbai, India

### Work Experience

- **Morgan Stanley** Mumbai, India  
*Analyst, Morgan Stanley Strats and Modeling Division* July 2010 - present
  - **Algorithmic Trading** - Variance minimization for US equity ETF market making
    - o Created strategies for improved hedging of intraday portfolio resulting from market making in ETFs; Strategies resulted in 3x improvement in variance reduction over existing strategy
    - o Researched state-of-the-art machine learning techniques as part of the optimal hedging problem
    - o Implemented the strategies in C++ for production leading to 9x improvement in time efficiency over benchmark methods in statistical packages
    - o Designed and implemented a platform for analyzing trades and developed analytics to infer reason for profit or loss
  - **Modeling and Valuation** - JHF Fixed Rate RMBS modeling, US prime residential mortgage modeling
    - o Established new relationships with Tokyo business desk, helped setting the risk systems for trading JHF Fixed Rate RMBS in secondary market; single-handedly developed prepayment model; visited Tokyo office to educate the traders and strategists about mortgage models
    - o Developed pricing model for US prime residential mortgages for CMO Trading Desk as a part of a 8 member team; Coauthored three internal papers: "Sensitivity calculation in presence of Monte Carlo Errors", "Breakup of Duration" and "Self consistent Current Coupon Model"
  - Trained rigorously in Stochastic Calculus, Arbitrage Pricing Theory, Probability, Time Series Analysis, Algorithms and basic Financial Products
  - Awarded "Outstanding Contributor to Asia Campus Recruiting Effort 2010-11" (amongst 4 analysts in Asia)
  - Skills developed: Machine Learning, Quadratic Programming, Mortgage Modeling, C programming, KDB/Q

### Education

- **Indian Institute of Technology Bombay** Mumbai, India  
*Bachelor of Technology in Computer Science & Engineering* Aug 2006 - May 2010
  - Secured Cumulative CGPA : 8.58/10.0
  - Awarded AP grade (for exceptional performance) in Mathematics Course (top 2 out of 480)
  - Awarded "Sandra Lee Purkayastha Scholarship" for academic excellence at IIT
  - Interned at Microsoft Research INRIA Joint Centre, Paris, France (Summer 2009) and The Chinese University of Hong Kong, Hong Kong (Summer 2008)

### Academic Achievements

- All India Rank 3 in IIT JEE 2006 (IIT Joint Entrance Examination) among over 300,000 students
- All India Rank 2 in AIEEE 2006 (All India Engineering Entrance Examination) among over 500,000 students
- Gold Medalist at Indian National Physics Olympiad & Indian National Chemistry Olympiad in 2006
- Awarded Letter of Appreciation by Chief Minister of Rajasthan for academic achievements

### Extra-Curricular Activities

- Author of popular puzzle blog - *pratikpoddarcse.blogspot.com*, with over 100,000 pageviews in 14 months (Jul '10 - Sep '11) - selected amongst **Top 10 Math Blogs** by *guidetoonlineschools.com*
- Awarded mentions and prizes for puzzle solving at popular forums - Australian Mathematical Society Gazette Puzzle Corner (Sep '10, Nov '10), IBM Research Ponder This (Oct '09, Nov '09, Jan '10, May '11), Puzzle Toad Carnegie Mellon University (Puzzle 32, Puzzle 33)
- Proficient Actor - Performed in more than 10 plays - Lead actor in a play with an audience of over 3000 people
- Avid traveller - Travelled to more than 50 cities in 10 countries (Japan, Hong Kong, Europe) in last 4 years