


## Satyavarta Satyavarta

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### EXPERIENCE

- **Facebook**, Menlo Park, CA Jun 2014 – Present  
*Quantitative Engineer*, Machine Learning 
  - Text analytics to derive insights from chatter, using natural language processing (NLP) techniques scaled up for size and linguistic diversity of target data.
- **Microsoft**, Bing, Bellevue, WA Nov 2008 – Jun 2014  
*Senior Software Development Engineer*, Multimedia Relevance  
Previous teams: Structured Knowledge, Commerce Relevance, Front-end
  - Trained models to predict multimedia intent in Bing queries, increasing traffic to multimedia vertical by 12%
  - Developed and refined user satisfaction metrics for multimedia content on the SERP
  - Built analysis and visualization tools with demonstrated speed-up in pace of experimentation across the team
  - Shipped interactive auto-suggest for Bing Shopping in collaboration with Microsoft Research
  - Projected revenue impact of global re-routing of customer traffic in support of recommendations to executives
  - Delivered performance gains of 25% in speed, and 40% in memory usage in front-end components
  - Trained spam/junk classifiers for filtering data ingested into structured data store
- **Boston University**, Dept. of Cognitive and Neural Systems, Boston MA Aug 2003 – Nov 2008  
*Graduate Research Assistant*, Auditory Neuroscience Laboratory of Prof Barbara Shinn-Cunningham
  - Created and evaluated the Cocktail Party Animal, a speech separation algorithm robust to reverberation
  - Performed information theoretic feature selection for speech separation
  - Programmed C++/SDL media player to run multiple movies simultaneously on screen with spatialized sound
  - Graduate coursework in machine learning, statistical modeling, and information theory
- **Max-Planck Institut für Informatik**, Saarbrücken, Germany May – July 2001  
*Intern* in Algorithms Group, with Dr Ulrich Meyer
  - Prototyped and evaluated an average-case linear time algorithm for Single Source Shortest Paths problem in the LEDA C++ algorithms library.

### EDUCATION

- **Boston University**, Boston MA Jan 2013  
**Master of Arts**, Cognitive and Neural Systems
- **Indian Institute of Technology (IIT)**, Delhi, India May 2003  
**Master of Technology**, Computer Science and Engineering  
*Major project*: USB Stack for RTKER Real-time Operating System (RTOS)
- **Bachelor of Technology**, Computer Science and Engineering May 2003  
*Academic projects*:
  - Set up Linux compute cluster, and analyzed performance on parallel Integer Sort benchmarks, Summer 2002
  - Developed and implemented Optimal Heterogeneous Vehicle Routing in a metro city under the competitive Summer Undergrad Research Award, 2000
  - Designed and implemented online course pre-registration system prototype, Summer 1999

### SKILLS AND INTERESTS

C++, R, MATLAB, SCOPE, C#, Python, bash/CMD, some JavaScript (d3.js)  
Algorithms, Machine Learning, Stochastic Processes, Scientific Visualization

### AWARDS

Dean's Fellowship, Boston University, 2003 • Graduate Engineering Test (GATE) in CS&E, 98.20%ile, 2001  
Summer Undergraduate Research Award, 2000 • All India Rank 179 (~99.8%ile) for IITs, 1998  
NTSE national scholarship 1996–2008