

## DAVID PURDY

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### EDUCATION

**University of California, Berkeley** **2004 – 2009 (expected)**

Statistics Ph.D. candidate, Advisor: Bin Yu. My research focus is machine learning, especially on learning ranking functions, data visualization, and model selection, with applications involving very large, very high dimensional data sets. Collaborations with: Microsoft, Salford Systems, and others. Service: President of Statistics Grad Student Association, Grad Assembly, and seminar coordinator.

**Harvard University** **1996 – 1999**

A.B. Mathematics with honors. Senior thesis: *Searching for Elliptic Curves of High Rank*. Advisor: Noam Elkies. Notable coursework: linguistics, Japanese, and graduate math, EE, and CS courses.

**California Institute of Technology, Pasadena, CA** **1995 – 1996**

In high school, one of 32 students nationally to score a perfect 1600 on SAT, due to twin interests in math and languages. Faculty encouraged transfer to Harvard to study number theory and linguistics.

### EXPERIENCE

**Morgan Stanley, New York, *Summer Associate*** **5/2008-8/2008**

Conducted applied research in algorithmic forecasting models for a proprietary trading group.

**Microsoft Research Asia, Beijing, China, *Visiting student*** **7/2005**

Began research project to improve Japanese transliteration with improved rank prediction.

**AltaVista, Overture and Yahoo!, *Associate Researcher*** **5/2002 – 11/2003**

- Lead researcher for multiple information retrieval and machine learning applications, including: summarization, web index quality, spam detection, query classification, and relevance metrics.

**FireSpout, *Associate Research Scientist*** **6/2000 – 11/2001**

- Conducted research and prototype development involving: statistical natural language processing (SNLP) and machine learning, with applications to: document summarization, clustering and categorization, language identification, and topic identification.
- Significantly involved in: investor presentations, project development with customers, patent applications, recruiting, and competitive research.

**National Security Agency, *Cryptanalytic Mathematician*** **6/1999 – 6/2000, Summers 1996 – 1998**

- Researched statistical machine translation (SMT) algorithms, applications, and mathematics.
- Researched pure mathematics and computational topics in number theory and algebraic geometry, specifically the areas of elliptic curves, error correcting codes, and cryptanalysis.
- Developed cryptanalytic systems on high-end platforms, including supercomputers.
- 4 classified technical reports, one of which received special widespread distribution.

### LANGUAGES

- Japanese – intermediate, Chinese – beginner. Have spent 5 months in CJK countries.
- Matlab, R/S-Plus, and Perl. Some experience with C, Python, Mathematica, and GP/Pari.