

# Jacob B. Colvin

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(707) 628 - 2987  
East Palo Alto, CA

jbcolvin@fastmail.fm  
<http://alumni.soe.ucsc.edu/~jcolvin>

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## Education

- **MS Statistics and Applied Mathematics**, Univ. of California Santa Cruz, 2011
  - Developed SMC and MCMC implementations of Markov Random Fields.
- **MS Statistics**, California State University East Bay, 2007
- **BS Computer Science, BS Statistics**, Minor in Philosophy, UC Davis, 2003

## Skills

- Extensive background in Statistics from both **Frequentist** and **Bayesian** perspectives including topics such as Regression Models, GLM, ANOVA, DoE, Time Series, Decision Theory, Hierarchical Modeling, Missing Data, Data Transformations, etc.
- Numerical Analysis topics including Sequential Monte Carlo (**SMC**), Markov Chain Monte Carlo (**MCMC**), Numerical Integration, Optimization, and Linear Algebra.

## Employment

- **Statistical Analyst**, Microsoft, 2013-Present
  - Member of the Applied Statistical Engineering department (Xbox).
  - Tools used include R, SCOPE (for big data), and JMP.
  - Data sources include log files, CSV files, SQL databases, and Xbox Live telemetry.
  - Automated reporting and developed analysis tools for colleagues as needed.
  - Analysis of hardware testing data such as Boot/Testing Errors, Performance Metrics, Mean Time Between Failures, Error Rates, Power Usage, and DoE.
- **Data Analyst**, Graphics Microsystems Inc, 2004 - 2005, and Summer 2007
  - GMI provides closed loop control equipment for industrial printing presses.
  - Provided ad hoc analysis for executives, sales, and field support personnel.
  - Developed a system of HTML reports summarizing printing press performance.
  - Automated the collection of data from diverse sources including unstructured text files and modifying code to access binary files.
- **Teaching Assistant**, University of California Santa Cruz, 2007 - 2011