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**University of California, Berkeley** 08/2004 – 05/2006  
**B.A.**, Applied Mathematics  
**GPA:** 3.821 (Graduated with High Distinction in General Scholarship)  
**GRE:** 710 (Verbal), 800 (Quantitative), 5 (Analytical Writing)

**Research Interests** Bayesian statistics, clustering, change point detection, MCMC

Oatts, Julius T., et al. "Effect of Alpha-2-Agonist Premedication on Intraocular Pressure after Selective Laser Trabeculoplasty." (in revision)

- Created and implemented method to simulate nationwide snowfall from temperature and rain data using machine learning
  - Algorithm uses parametric (for simulating snow amounts) and nonparametric (for simulating snow days) models
  - Optimized program for efficiency and scalability – reduced overall runtime by 60%
  - Simulations allow for active risk management under Return on Value at Risk (RoVaR) model
- Implemented robust detrending in pricing engine based on backtesting results
- Prepared customized weather risk analysis with proposed hedging solutions for large businesses in retail, energy, and outdoor entertainment industries
- Produced automated weather risk profile generator to provide dynamically populated factsheet based on client location and industry
- Priced simple and compound weather derivatives using R

- Performed 20+ valuations projecting client firms' pension liabilities decades into the future
- Reported 7 client firms' liabilities in government accounting forms
- Managed data (up to 30,000+ records per project) – prepared data questions, updated data per client response
- Programmed 3 calculators used to estimate benefit for client's employees
- Tested 10+ retirement plans for discrimination in favor of executives

**Interests:** Web programming, cooking, singing, badminton