

PAUL COVINGTON

(919) · 673 · 4991 ◇ pmcovington@gmail.com
485 Waverley St. ◇ Menlo Park, CA 94025

EDUCATION

Stanford University

Ph.D. Institute for Computational and Mathematical Engineering
GPA: 3.99

In Progress

University of California Berkeley

B.S. Mechanical Engineering
GPA: 3.94

June 2009

EXPERIENCE

Cascade Technologies

Consultant

2010-present
Palo Alto, CA

- Development and support of a massively parallel C++/MPI physics simulation code with a team of 6
- Designed and deployed general-purpose templated k - d tree on distributed memory systems
- Implemented hardware-accelerated browser visualization of large volumetric datasets with a client-server socket model

Renault S.A.

Process Engineer

January 2008 - December 2008
Paris, France

- Developed and deployed software synthesizing real-time measurements and reduced-order finite element models to predict automotive cylinder machining errors
- Performed experiments at Chalons-en-Champagne to validate on-system predictions

General Electric

Intern

June 2007 - August 2008
Greenville, SC

- Improved and hybridized statistical models to predict turbine blade time-to-failure in gas turbines

COURSEWORK

CS 229: Machine Learning

STATS 362: Monte Carlo

CS 246: Mining Massive Datasets

CS 334A: Convex Optimization

CME 308: Stochastic Methods in Engineering

STATS 217: Stochastic Processes

STATS 315B: Data Mining

CME 305: Discrete Mathematics and Algorithms

TECHNICAL SKILLS

- Most comfortable with Python and C++, familiar with Java, R and Matlab
- Wrote simple MapReduce jobs in the Python Dumbo framework for processing time-dependent acoustic simulation data
- Participated in Observing Dark Worlds Kaggle competition, placing 18th/357 using Bayesian inference