John Salvatier

Relevant Experience

Developer/Quant RPX Research, Inc., Redmond, WA 6/09-10/12

- Built on-line predictive model for high-frequency bond price data for trading algorithms (C#)
- Built and improved-existing automated trading infrastructure (C#)
- Added high-frequency price collection to data collection infrastructure
- Created and used time-series models in to look for bond/futures market trading strategies (Python)
- Built system for evaluating equity trading strategies against historical market data (C#)

Developer (Intern) Capstone Technology, Camas, WA Summer 06

- Improved stability and interface efficiency of PARCSuite plant operations management software in C#
- Responsible for the migration of several components of the PARCSuite software from the 1.1 .NET framework to the 2.0 .NET framework

Open Source

Github account github.com/jsalvatier

PyMC Bayesian inference package (Python) 10-current

- Overhauled likelihood calculation to automatically provide gradients
- Implemented gradient based samplers which scale better with problem size, self-tune, handle difficult distributions well, etc.
- Experimented with numexpr and Cython code generation for likelihoods
- Wrote experimental PyMC 2 replacement with dramatically simpler, smaller and more powerful codebase, which will soon replace PyMC 2 and become PyMC 3

scikits.bvp_solver 09

Built and currently maintain a user-friendly interface for the Fortran numerical boundary value problem solver BVP_SOLVER

Self-Study

Self-Study 10/12-current

- Completed all lectures and homework for two Carnegie Mellon courses. (translating from ML to Scala)
  - Functional Programming
  - Parallel & Sequential Data Structures and Algorithms
- Learning Hadoop via Twitter's Scalding, by implementing parallel Scan function for hadoop

Skills

- Fluent in C#, Python, Scala
- Familiar with Java, Haskell, ML, C, C++, R, LaTeX and others
- Experienced with Bayesian statistical modeling (MCMC)
- Well-versed in economics and decision theory
- Skilled at technical writting
- Fluent in Spanish

Education

University of Washington 09

- B.S. in Chemical Engineering
- B.S. in Paper Science and Engineering

Other Experience

Process Engineer (Intern) Boise-Cascade, Pasco, WA Summer 08

- Investigated economics and feasibility of three capital projects
- Conducted trial to investigate systemic product quality measurement problems

Process Engineer (Intern) Boise-Cascade, Pasco, WA Summer 07

- Investigated maintenance and energy projects for cost effectiveness

Researcher (Intern) Kimberly-Clark, Neenah, WI Summer 05