

John Salvatier

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| Relevant Experience | Developer/Quant RPX Research, Inc., Redmond, WA | 6/2009–10/2012 |
| | <ul style="list-style-type: none">• Engineered on-line, high-frequency, predictive price model for a bond trading algorithm (C#)• Engineered time-series models to look for profitable bond, futures and equity market trading strategies (Python)• Engineered system for generating and tracking trading performance metrics (C#)• Built system for evaluating bond, futures and equity trading strategies against historical market data (C#)• Added high-frequency price collection to data collection infrastructure (C#)• Built and improved-existing automated trading infrastructure (C#) | |
| | Developer (Intern) Capstone Technology, Camas, WA | Summer 2006 |
| | <ul style="list-style-type: none">• Improved stability and interface efficiency of PARCSuite plant operations management software (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 3.0 Bayesian inference package (Python) | 2012–Present |
| | <ul style="list-style-type: none">• Engineered PyMC 2.2 replacement with dramatically simpler, smaller and more powerful codebase, which will soon replace PyMC 2.2 and become PyMC 3.0 | |
| | PyMC 2.0 Bayesian inference package (Python) | 2010–2012 |
| | <ul style="list-style-type: none">• Overhauled likelihood calculation to automatically provide gradients• Implemented gradient based samplers which scale better with problem size, self-tune, handle difficult distributions well, etc.• Engineered PyMC extension allowing for multiple chain samplers• Experimented with numexpr and Cython code generation for likelihoods | |
| | scikits.bvp_solver | 2009 |
| | Built and presently maintain a user-friendly interface for the Fortran numerical boundary value problem solver BVP_SOLVER | |
| Self-Study | Carnegie Mellon Courses | 10/2012–12/2012 |
| | Completed all lectures and homework for two courses. Courses were designed for ML, but I completed them in Scala. | |
| | <ul style="list-style-type: none">• 15-150: Functional Programming• 15-210: Parallel & Sequential Data Structures and Algorithms | |
| | Hadoop | 12/2012–Present |
| | Learning Hadoop via Twitter's Scalding, by implementing parallel Scan function for Scalding | |

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| Skills | <ul style="list-style-type: none"> • Fluent in C#, Python, Scala • Experience with Java, Haskell, ML, C, C++, R, L^AT_EX and others • Experienced with Bayesian statistical modeling (Markov Chain Monte-carlo) • Well-versed in economics and decision theory • Skilled at technical writting • Fluent in Spanish | |
| Education | University of Washington | 2009 |
| | <ul style="list-style-type: none"> • B.S. in Chemical Engineering • B.S. in Paper Science and Engineering | |
| Other Experience | Process Engineer (Intern) Boise-Cascade, Pasco, WA | Summer 2008 |
| | <ul style="list-style-type: none"> • 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 2007 |
| | <ul style="list-style-type: none"> • Investigated maintenance and energy projects for cost effectiveness | |
| | Researcher (Intern) Kimberly-Clark, Neenah, WI | Summer 2005 |
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