Mark Pazolli

Objective

Qualified computer scientist and applied mathematician seeking a data scientist position with seven years' engineering experience including three years undertaking database analysis, developing statistical models and IT solutions.

Recently noted in ITNews for analytics work predicting the Triple J Hottest 100. http://www.itnews.com.au/News/370073,warmest-100-is-back-with-new-bag-of-tricks.aspx

Education

Course weighted average: 75% (University of Western Australia)

Bachelor of Science (Computer Sci and Applied Maths)

Units in probability and statistics, quality control and software engineering.

Bachelor of Engineering with Honours (Electrical Eng)

Units in power engineering, digital communications and control theory.

Work History

Lead Developer

2013 (on-going) / Western Power

- Eight months as lead developer of two others on Hopper – a web-based simulation tool written in Python and used to manipulate statistical models and quickly evaluate failure outcomes for several hundred thousand assets under various scenarios – sometimes resulting in evaluating 10 million+ instances and several gigabytes of data. Results were presented using the Google Visualization API.

Asset Modelling Engineer

2012 to 2013 / Western Power

- Twelve months using a variety of tools including Netica, Minitab, R, SQL and ArcGIS to develop statistical models to predict asset failure in the Western Australian electricity network. Included substantial data mining and extraction using a variety of tools (Cognos, TOAD, etc.)

Reliability Engineer

2011 / Western Power

- Eighteen months using statistical methods and fault database analysis to identify the cause of faults, evaluate the statistical financial value of solutions and make a recommendation. Included development of a .NET application (LV Merge) to assist simulation practices.

Engineer, programmer and indie software developer

2009 to 2011 / Western Power, 2006 / W.A. Telecommunications Research Institute and 2005 to 2007 / Seashore

- Ten months as an electrical construction manager organising work crews preceded by a 3-year graduate programme with five rotations in variety of areas including optic fibre network design.
- Part-time work providing programming support to a commercial research and development project.
- Development of Seashore – a Mac OS X raster image editor downloaded over 1 million times.

Software, programming and statistical/analytics work

- **Software**
  - Minitab, R, Netica, TOAD, Cognos, QlikView, MATLAB, ArcGIS, Microstation V8, Apache, Adobe Creative Suite, Microsoft Office (including Access), git/cvs/svn, PostgreSQL, MySQL, Oracle 11g.
- **Programming languages and platforms**
  - Python, PHP, jQuery and HTML/CSS to build Hopper – an enterprise Big Data simulation tool.
  - Java to work on a range of projects including netprocess – a backend Bayesian network evaluation tool.
  - .NET to develop LV Merge – a visual merging tool used to assist the simulation of LV network power flows.
  - Objective-C used to develop Seashore – a raster image editor for Mac OS X.
  - Technical lead for several software projects (Hopper, UWA software learning tool and OPI #75) with an understanding of scoping, use case analysis, version control, code reviews and enterprise software development.
- **Statistical and stand-alone analytics work**
  - Summary statistical, survival analysis, quality control and valuation reports using Minitab.
  - Quality index to probability of failure using Bayes' theorem and Minitab/Excel.
  - Naive Bayes sentiment analysis using Python and mincemeat (MapReduce). Very basic understanding of Hadoop/Hive/Pig.
  - Image recognition using Python and Tessarect. Instagram and Twitter API experience.
  - High risk asset clustering and advanced geospatial data operations using ArcGIS and Python.
- **Certified Practicing Engineer (CPEng.)** – Electrical

Referees

Referees available upon request.