Jakub Dominik Kozłowski

Skills

- **Java**: 4 years; JEE6 APIs: JPA, JAXB, JAX-RS, EJB – Summer 2010.
- **Scala**: since Sept 2012, completed **Functional Programming Principles in Scala** course organised by Martin Odersky; **scalaz**
- **Haskell**: since Jan 2014.
- **Hibernate, Glassfish, OSGi, Hadoop**.
- **Test-Driven Development, OOP, Design Patterns, Functional Programming.**
- **Open Source Development Tools**: Maven3, Jenkins, TestNG, Git.

Experience

Sept 2014, Open Source, *http://github.com/jkozlowski/kdb-haskell*.

- Haskell client library to kdb+ database (in development).

January 2013, IT Graduate in Cash Equities, Algo Development Team, UBS.

- Connecting a legacy algorithmic trading system to the rewritten decision engine.
- Externalising smart order routing from a legacy algorithmic trading system.
- Development and improvements to a risk management portfolio algorithm running on the GPU.
- January 2014 - Finished a rewrite of an algorithmic decision/model engine on top of Akka in order to improve testability and enable full message persistence to KDB database for debugging/recovery/replay purposes.

September 2012, IT Graduate in Cash Equities, Cash Automation Team, UBS.

- Finished a rewrite of a network latency visualisation tool with RESTful back end talking to a KDB database and AJAX/HTML5 front-end.

MEng, Final Year Project, Eugene: Agent-Based Market Simulator for use in Validation and System Testing of Trading Algorithms.

- Explores the efficacy of using Agent-Based Simulation for testing of Trading Algorithms that could supplement backtesting on historical data.
- Received a distinction - 86%.
- Awarded second place in *IBM Individual Project Prize 2011/2012*.

March 2012, An Analysis of Distributed Indexing, Group Project, Information Retrieval and Data Mining.

- An investigation into the viability of distributed indexing with Terrier, performed using a Hadoop cluster (Cloudera distribution) on a subset of ClueWeb09B corpus (approx. 14GB compressed data).
- Awarded Bronze Award at StuConOS, the 1st Student Conference on Optimisation of Software at UCL.

Summer 2011, Summer Internship, UBS.

- Implemented a framework for automatic migration of legacy Groovy code to a new API.
- Mentored a group of Work Experience personnel to help with Automated Testing of Trading Algorithms through simulation.

October 2010 – March 2011, Newton Spectrum Browser, 3rd Year University Group Project.

- Successfully led a team of 3 developers that delivered a manuscript browser to display and visualize documents stored in TEI format.
- Responsible for planning iterations, designing the overall architecture of the software and implementing crucial modules.
- Received a distinction - 80%.

Summer 2010 – 15 week Internship, CiteSeeing – citeseeing.com, Ingemar Cox, University College London.

- As member of a two-programmer team, successfully completed design and implementation of a web service that provides citation information about published academic papers. Ensured team productivity and rapid development by employing JEE6 stack with Glassfishv3.
- Co-Implemented a document fingerprinting algorithm, following Design Patterns. Designed and implemented persistence layer using EJB and JPA APIs with Hibernate provider.
- Designed and implemented RESTful API using JAX-WS and JAXB.

Education

2008 – 2012, University College London, MEng Computer Science.

- Awarded First Class Honours Degree.
- Excellent overall results for 1st (74%), 2nd (76.88%), 3rd (79.13%) and 4th (82.5%) academic years.
- Received Wiley Book Prize for best performance in practical subjects for 3rd year.
- Awarded Dean's List certificate in recognition of outstanding academic achievements for 2nd, 3rd and 4rth year.
- Received Computer Science Department Sessional Prize for academic achievements for 1st year.
- Obtained 3 year MISYS Scholarship for academic excellence.
- Master Level modules: Financial Markets and Financial Information Systems, as well as Distributed Computing and Security, and Information Retrieval and Data Mining.