

Jeffrey L. Kurtz

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April 2014 to Present: Self Employed, Wayland, MA — Business and product development work in the environmental services industry. Current projects include data mining and analysis using Pentaho Data Integration, custom Java programs and Tableau.

- Extended open source Java Swing PDF viewer to add support for drawing on the PDF image and capturing annotation coordinates. Coordinates and meta data are saved to a CSV file for use in batch processing. *ICEpdf, Swing, AWT, Java 2D*.
- Created data extraction tool that pulls text from specific regions of a PDF form and stores the data in a database for analysis. *Spring, MySql, TestNG, PdfLib, opensv*.
- Analyzed and produced visualizations of public environmental data. Used ETL tools to prepare data. *Tableau, MySql, Pentaho Data Integration (Kettle)*.

January 2011 to April 2014: Manager, Convexity Capital Management LP, Boston, MA — Supervise software implementation and maintenance for post-trade processing and reporting. Work closely with business units in portfolio management, cash management, and operations to understand and prioritize requirements. Manage team of developers using agile techniques to deliver high quality, reliable solutions.

- Recognized for improving the reliability of software and significantly reducing daily trade processing issues.
- Introduced a new web-based client that seamlessly worked with existing software and provides a much richer user experience.
- Initiated a cross-organization effort to document over sixty business processes to improve technology support for those processes.
- Implemented support for regulatory requirements in advance of deadlines.
- Introduced Agile to the IT organization and demonstrated its usefulness where it is now used by all development teams.
- Improved and maintained suite of Java Swing enterprise applications and J2EE servers. *Swing, JBoss, Sybase, JMS, Spring, Hibernate, HSQLDB, Apache Poi, JasperReports, TestNG unit testing, YourKit profiler*.

March 2008 to December 2010: Principal Software Engineer, Convexity Capital Management, LP, Boston, MA — Develop and maintain Java applications for cash management and operations groups. Coordinate cross-team efforts to implement broad changes to the company's software and to improve the software development environment.

- Implemented Net Asset Value report for daily monitoring of liquidity to support cash management decisions. Created PDF and Excel reports. *JasperReports, J2EE, Apache Poi*.
- Helped the operations group track expected and failed payments and monitor daily, multi-currency settlement activity. Created a custom Swing component that showed a hierarchy of information in three columns with sub-totals and grand totals. Created a J2EE service for managing the workflow and persisting state information. Realtime updates came into the Swing application from multiple users. *Swing, Hibernate, JBoss, JBoss jBPM, JMS, JGoodies Forms, JGoodies Binding, Sybase*.
- Implemented bulk entry of daily collateral moves and tracked expected and actual moves. Supported drag-and-drop from Excel to Swing application. *Swing, JGoodies Forms, JGoodies Binding*.
- Created a component to reliably handle high volumes of updates and make the JTable-based user interface more responsive. *Swing, Java Concurrency*.
- Coordinated work of two engineers to create profit and loss visualizations.

January 2006 to March 2008: Consultant, Convexity Capital Management, LP, Boston, MA — Design and implement Java Swing user interfaces and create PDF reports for the portfolio management and operations groups. Maintain existing proprietary applications.

- Designed and implemented Java Swing application to monitor all transactions as they were captured and reported to third party systems. Displayed transactions in a JTable with custom highlighting so new additions to the table faded from one color to the background color. The table could be filtered by multiple attributes. Preferences were stored to preserve column ordering and column visibility. *Swing, JBoss, SwingWorker, SwingLabs JXPanel, JXTable, Java Preferences*.
- Promoted and taught developers test-driven development techniques, improving the reliability of software across four teams. Led transition from JUnit to the TestNG unit testing framework. *TestNG, JUnit*.
- Supervised developer's work to add new features to an application, focusing on a clean implementation and well-designed user experience.

October 2004 to December 2005: Contractor, Wellington Management, Boston and Marlborough, MA — Responsible for implementing trading system user interfaces. Work closely with business analyst and user experience expert to understand requirements. Improve performance and usability of client-server application.

- Developed Java Swing user interfaces for foreign currency trading, including order acceptance, generation, execution and management. *Swing*.
- Extended and improved in-house tree-table component used for viewing and editing trade data. *Swing*.
- Participated in UI architecture committee where we discussed development strategies and roadmaps to improve client performance, reliability and maintainability.
- Helped design server changes to improve status reporting and user interface responsiveness.

February 2001 to October 2004: Contractor, EMC, Hopkinton MA — Implement user interfaces and components for flagship network storage system. Create APIs to simplify application development.

- Created test harnesses to simplify component testing in an environment with significant dependencies across layers. *JUnit*.
- Collected and documented requirements for filtering information for administrators.
- Reduced memory demands of the application by introducing layer of indirection between business model and domain model.
- Designed and implemented a task execution framework used by developers to improve user interface responsiveness.
- Built a preference subsystem externalize component preferences in a generic way to a database, allowing user interface components to save their state and easily collect the state of sub-components.

July 1995 to February 2001: Senior Scientist, MITRE, Bedford MA — Research, develop and experiment with technologies to improve cooperative work, information management and interaction with computers

- Developed Java software components to easily add room-based cooperative support to an application. *Swing*.
- Helped develop a methodology for evaluating multi-modal cooperative environments and conducted empirical studies.
- Wrote a phone-based interface to a collaborative environment using a multicast application and a speech synthesizer.
- Built a web-based system to help analyze news reports using information retrieval and extraction technologies to automatically identify relevant information and present summaries to analysts. *JavaScript, AJAX (circa 2000)*.
- Used speech recognition software to demonstrate a unified interface to several disparate software packages used for intelligence analysis. *Tcl/Tk*.

BS Math/Computer Science, Carnegie Mellon University, 1995