Damion Junk Résumé

CONTACT INFORMATION junkda@gmail.com Nashville, TN, 37206 812.369.0175 github.com/damionjunk

QUALIFICATIONS AND INTERESTS Clojure, Java, Python, R, ClojureScript, JavaScript, JRuby, statistics, natural language processing, sentiment analysis, computational social science, systems architecture, exploratory data analysis, machine learning, functional programming, object oriented programming, ZeroMQ, RabbitMQ, Hadoop, Pig, Cascalog, Nginx, AWS: EC2, S3, EBS, Linux administration, DVCS, Git, SVN, Emacs, Vim, LATEX, audio engineering, and music synthesis

EDUCATION

Indiana University - Ph.D. (Not Complete), Informatics and Computing, Bloomington, IN Fall 2011 - Fall 2014, Focus: Complex Systems and Networks GPA: 3.95 (4.0 scale)

Purdue University - B.S., Computer Science, West Lafayette, IN

Awarded December 2000, Minors: Anthropology and Music Theory GPA: 3.49 (4.0 scale)

EARLY STAGE STARTUP DEVELOPMENT **Sententia, LLC**, Indianapolis, IN Director of Engineering and Architecture

October 2012 to present

I implemented the proof of concept product for identifying ambiguous language use at the sentence level in written English texts. I am responsible for systems design, and implementation, and the deployment systems architectures. I lead a team in the development of the production-level deployment of WordSentry for Outlook, Word, and WordSentry for Web, the flagship commercial products from Sententia. I built a publicly accessible API (by subscription) for programatic analysis of text at various granularity levels for third party integration. I am working with a tenured university professor to improve the accuracy of the ambiguity detection algorithm.

Technologies: Clojure, JRuby, R, Python, ClojureScript, MongoDB, Java

CO-FOUNDER EXPERIENCE

Guidewave Consulting, LLC, Bloomington, IN

Co-founder and CTO

March 2012 to present

I built an infrastructure capable of processing tens of millions of tweets every day to extract a multidimensional sentiment signal in real time from the Twitter firehose via GNIP. I built a JSON/REST API to enable clients to retrieve aggregated sentiment values at various levels of smoothing and granularity. I set up a system to efficiently store Twitter data for further batch processing and analysis. I developed the initial MVP: A daily email newsletter containing visualizations of the measured sentiment and the current sentiment trends.

Technologies: R, Clojure, Python, MySQL, Hadoop, Pig

RESEARCH

Indiana University: EMBERS, Bloomington, IN

Research Assistant

Summer 2012 to present

I built a financial event prediction engine that processes the Twitter firehose in real time. This system uses a Clojure based DSL that I implemented to perform symbolic regression on lagged time series data. My sentiment analysis library was released on GitHub as open source.

Technologies: Clojure, ZeroMQ, Java, MongoDB, Python, R, Eureqa

RESEARCH

Indiana University: MESUR, Bloomington, IN

Research Assistant

Fall 2011 to Summer 2012

I built coauthor networks using large-scale bibliometric data. With my academic adviser, I co-developed algorithms for author name disambiguation. I developed a data-processing pipeline using Hadoop, Pig and Java, and was responsible for the setup and maintenance of our Hadoop computing cluster.

Technologies: Clojure, R. Python, Java, Hadoop, Pig

INDEPENDENT CONSULTING **Indiana University**, Bloomington, IN Configuration Management Consultant

September 2011 to present

I provide configuration management and development solutions as well as other build issue resolutions on an as needed basis.

Technologies: Maven, Java, IntelliJ, Eclipse, Jenkins

INDEPENDENT CONSULTING

Purdue Federal Credit Union, West Lafayette, IN

Independent Contractor

May 2008 to May 2011

I built a web application that integrated with existing online banking architecture and core banking currency transfer systems. This system collected and verified data to perform automated clearinghouse (ACH) financial transfers.

Technologies: Java, JSP, Tomcat, MySQL

ENTERPRISE DEVELOPMENT

Indiana University, Bloomington, IN

Lead Developer

September 2009 to September 2011

I was a part of the core team that planned, designed, and developed the time and attendance module of KPME, an open source human resources management system. I was responsible for implementing much of the core system functionality, including scenario specific overtime pay calculations, data storage and retrieval strategies, and data model designs. I worked closely with business analysts to drive process and requirements documentation.

Technologies: Java, JSP, Oracle, Python

EARLY STAGE STARTUP DEVELOPMENT **Aubice, LLC**, West Lafayette, IN and Denver, CO Senior Software Developer

March 2007 to November 2009

I was responsible for building portions of an information discovery, exploration, and extraction application. I built web-crawling, language filtering and processing, and data sanitizing modules. I created Japanese localization and Japanese (CJK) language processing capabilities. I mentored junior developers as part of an internship program, and directed student research in the integration Named Entity Recognition (NER) systems into our system core. I setup, administered, and installed servers for hosting our web application and data processing systems.

Technologies: Java, JSP, Groovy, MySQL, Linux, Dell Rack Hardware

RESEARCH SOFTWARE DEVELOPMENT

Purdue University, West Lafayette, IN

Lead Software Developer

March 2004 to March 2007

I was the lead developer for the Protein Kinase Resource - A webapp to provide researchers with unified access to protein kinase information. I was involved in various researcher to software developer collaborations as both an adviser, and internal consultant. I mentored student interns interested in software development in a Bioinformatics research lab.

Technologies: Java, JSP, Hibernate, MySQL, Ruby, Perl

EARLY STAGE STARTUP DEVELOPMENT Cantilever Technologies, West Lafayette, IN

Software Developer

December 2000 to March 2004

I helped design and develop a patented tool for structured communication and business process mapping from supply chain through the design, engineering, and manufacturing processes. I was responsible for data processing and integration components, server infrastructure, and process visualization tools.

Technologies: Java, JSP, MySQL