Resume: Brian M. Clapper

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Professional Experience

March, 2016, to date
Senior Instructor and Curriculum Developer
Databricks, Inc., 160 Spear St., 13th Floor, San Francisco, CA 94105

Databricks employs the creators of [Apache Spark][] and provides a cloud-based integrated Spark workspace that makes using and managing Spark simple.

I have been working with Databricks since mid-2015, initially as an independent contractor doing Spark training and curriculum developer. In mid-March, 2016, I joined Databricks as a full-time employee, where I continue that work.

March, 2009, to date
Owner, President, and Principal Consultant: ArdenTex, Inc.
25 Walnel Dr., Royersford, PA 19468

Current Contracts

September, 2013, to date
Independent Consultant, PHmHealth, LLC

> PHmHealth is a health care compliance-related startup. They have an existing Play! application, and they need a few people to debug and enhance it. As part of this effort, I'm also building a customer portal web application, using Play! as the REST server, with Angular.js and Twitter Bootstrap on the front-end.

Training

I also do corporate training. From 2013 through early 2016, I taught primarily as a subcontractor to New Circle. I also did Spark training through [Databricks, Inc.][]. See my New Circle Instructor Profile for a description of my courses and comments from past participants. I have taught training classes in:

- Spark
- Scala
- The Play Framework
- AngularJS
- Python
- Ruby
- Ruby on Rails
- Java 8

Past Contracts

May, 2014, to January, 2015
Independent Consultant (subcontracted through Chariot Solutions), Angie's List,
1030 E. Washington St., Indianapolis, IN 46202

> Angie's List is a subscription service that provides reviews of local contractors and other services. They are in the process of rearchitecting and converting some of their existing systems to use Scala and the Play! framework. They've hired various consultants to help them in this effort. I did some part-time work for Angie's List, through Chariot Solutions.

May, 2012, to January, 2014
Independent Consultant, Dryden Procurement Technologies, LLC,
1410 Russell Rd., Suite 204, Paoli, PA 19301

> Dryden provides procurement analytics for companies trying to manage their indirect spending. I designed and built a client portal, to allow clients on-demand access to reports, graphs, and spending statistics. Now, instead of individually calculating reports for each client via spreadsheet formulas,

Dryden personnel can simply upload the raw data to the portal, which produces both web-based and PDF reports and graphs automatically. The portal, currently in beta testing, is implemented in Ruby on Rails.

December, 2013, to May, 2014 Independent Consultant, Help HOPE Live
Two Radnor Corporate Center, 100 Matsonford Road, Suite 100, Radnor, PA 19087

Help HOPE Live is a non-profit that strives to help medical patients and their families use community-based fundraising to meet uncovered medical expenses related to transplantation or a catastrophic injury or illness resulting in a physical disability.

As a contractor, I was working with other consultants to help build and enhance the donation campaign web application. The application is written using Python and Django, running against a MySQL database.

September, 2013, to February, 2014
Independent Consultant, Onswipe
39 W. 14th St., Suite 205, New York, NY 10011

Onswipe converts publishers' content to mobile devices. They're in the process of rearchitecting some of their software. I was contracted to develop an administrative application builder tool using Play! and Scala.

September, 2013
Independent Consultant, Gregory FCA Communications
27 West Athens Ave., Suite 200, Ardmore, PA 19003

Built a Javascript package (written in CoffeeScript and compiled to Javascript) to drive an HTML-based marketing quiz. The package is general-purpose and divorced from the look-and-feel of the HTML page.

October, 2012, to January, 2014
Independent Consultant, Harmonic, Inc.
4300 North First Street, San Jose, CA 95134

Harmonic builds and sells products for distributing, transcoding, and manipulating video. These products all have licensing needs. I was contracted primarily to help in the licensing area, from understanding and helping to maintain the current in-house licensing solutions to assisting in planning for future licensing needs.

June, 2012, to February, 2013
Independent Consultant, Zendayfus, LLC

Zendayfus is a below-the-radar startup, building a Ruby on Rails-based web application to aid in job searches. I was contracted to help bring the application to a launch-ready state.

May, 2012
Independent Consultant, A-Frame Technology Services, LLC
Parkview Towers, 1150 First Avenue, Suite 950, King of Prussia, PA 19406

Assisting A-Frame personnel in diagnosing performance issues with a Spring- and Hibernate-based application. (Short-term contract.)

July, 2012, to September, 2012
Independent Consultant, QAD, Inc.
100 Innovation Place, Santa Barbara, CA 93108

Contracted to enhance a product data export capability for a the enterprise, Java-based product I originally helped to develop for FullTilt Solutions.

July, 2011, to September, 2011
Independent Consultant, JMV Services, Inc.'s ITS Property and Casualty Consulting subsidiary
17950 Preston Rd., Suite 750, Dallas, TX 75379

JMV Services provides software solutions for the insurance industry. JMV contracted me to build a custom Java library, to be integrated into the Talend data processing tool, using Apache XMLBeans to convert insurance- related data into an XML data export format.

July, 2011, to December, 2011
Independent Consultant, Orocast, LLC
Berwyn, PA

Orocast is a startup, developing a web- and smart-phone-based service. (A non-disclosure agreement prevents my disclosing the exact nature of the service.) With another consultant, I built a prototype system, which Orocast then used to test the market with investors. While my colleague focused on the mobile user interface, I built the back-end services layer. We settled on a Ruby on Rails solution, to provide for later expansion to a full-featured web site

March, 2011, to July, 2012
Independent Consultant, Alphabuyer, LLC.
1410 Russell Rd., Suite 102, Paoli, PA 19301

Alphabuyer is a consumer group-buying site, currently focused on the energy market. I was contracted to help debug and enhance their Python- and Django-based software application.

August, 2010
Independent Consultant, Dow Jones & Co.
4300 Route 1 North, Monmouth Junction, NJ 08852

Made custom enhancements to my curn open source RSS reader, which Dow Jones uses internally.

February, 2011 to May, 2011
Independent Consultant, QAD, Inc.
100 Innovation Place, Santa Barbara, CA 93108

Contracted to address some performance problems and correct some other defects in the enterprise, Java-based product I originally helped to develop for FullTilt Solutions.

June, 2010, to June, 2012
Independent Consultant, Hozzle Rocket, LLC
1123 Ashbridge Dr., Bryn Mawr, PA 19010

Hozzle Rocket is developing a web-enabled, subscription-based site for customers with multiple residences. The software is developed using Ruby on Rails, with a jQuery-based user interface. As a consultant to Hozzle Rocket, I helped design the production-ready system.

February, 2010
Independent Consultant, Technology Co-Pilot, LLC
6743 E. Tyndall Circle, Mesa, Arizona 85215

Technology CoPilot provides custom integration and software development for, among other things, the Stone Edge Order Manager ecommerce order management software suite. I have done some integration work for Technology CoPilot, mostly PHP/Linux-based.

March, 2009, to February, 2011
Independent Consultant, SDI Health, LLC
220 West Germantown Pike, Plymouth Meeting, PA 19462

SDI Health provides health care data solutions and analytics to various companies in the health care business space.

My duties, as an independent consultant for SDI, included:

- Tuning and reverse-engineering existing legacy systems
- Designing and implementing new data normalization software
- Participating in the rearchitecture of the internal data warehouse
- Providing software technical advice and direction

The data warehouse rearchitecture effort required consuming, normalizing, mastering and maintaining millions of rows of health care-related data records from disparate sources, using Microsoft SQL Server Integration Services (SSIS), Oracle, PL/SQL and custom components.

This was a 40-hour-a-week contract.

(SDI is now part of IMS Health.)

February, 2008, to March, 2009
Senior Software Engineer
Invite Media, Inc., 1716 Chestnut Street, Suite 4, Philadelphia, PA 19103 (Acquired by Google in June, 2010)

Invite Media built technology and provided network services to facilitate Internet optimized advertising. I was a senior developer of a small team that was responsible for specification, design, and implementation of large-scale,

real-time, advertising bidding engine and ad server. The system was written primarily in Python with some components in Java.

Technologies and techniques used included:

- Amazon's Elastic Cloud Computing (EC2) services
- Amazon's Simple Storage Service (S3)
- The Hadoop map/reduce framework
- The Twisted Python framework
- The RabbitMQ messaging framework
- PostgreSQL
- Django
- SQLAlchemy

June, 1999, to February, 2008
Enterprise Architect / Senior Developer
FullTilt Solutions, Inc., (acquired by QAD, Inc. in 2008),
1400 Liberty Ridge Drive, Suite 100, Wayne, PA 19087

I was one of a handful of senior-level developers of the FullTilt Perfect Product Suite product information management tool. We developed a business-to-business ecommerce product that streamlined the maintenance of product data. The product embodied a work flow process that enabled a company to process, classify, attribute, search, maintain, and deploy large volumes of product data, while minimizing the need for data entry personnel. The product's server-side software was written entirely in Java. Perfect Product Suite's user interfaces consisted of browser-based HTML screens that interacted with server-side Java servlets.

Perfect Product Suite is patented; I am listed as a co-inventor.

As a senior developer, my duties included architecture, design, development, and, occasionally, sales support. I worked on every component of Perfect Product Suite, including:

- the UIs and servlets
- the database API, a proprietary ORM
- the utility library
- the proprietary back-end Import Manager process that automatically classified and processed imported product data
- the XML parsing engine

In March, 2007, I assumed the position of Enterprise Architect, putting me in charge of the overall architectural direction of the product.

April, 1997 to June, 1999
Senior Architect / Senior Software Developer
PLATINUM technology International, inc., (acquired by Computer Associates in 1999), Three Valley Square, 512 Township Line Road, Suite 300, Blue Bell, PA 19422

One of two architects responsible for overall design of PLATINUM's Open Enterprise Management System (POEMS), a unified infrastructure into which all PLATINUM products were integrating, to provide seamless operation, administration, and look-and-feel across the PLATINUM product line. The components were written in C and ran on Microsoft Windows NT and multiple versions of Unix.

October, 1993, to April, 1997
Senior Member of Engineering Staff
N2K Inc., 435 Devon Park Drive, Suite 600, Wayne, PA 19087-1943

Senior developer, computer security professional, and internal staff consultant for N2K Inc, an Internet-oriented entertainment company and an on-line music retailer that ultimately merged with CDNow. During my tenure at N2K, my duties included:

- Designing and implementing a UNIX development environment.
- Designing and implementing a UNIX-based corporate firewall.
- Building and maintaining an in-house C++ utility library.
- Designing and implementing a C++ network-based server to field credit card transactions and forward them through Visa-supplied hardware to a clearing bank.
- Building a C++ command shell, using lex and yacc for a proprietary full-text database system.
- Designing and partially implementing an NFS proxy to permit tunneling NFS traffic safely from behind the corporate firewall to machines in the firewall's DMZ.
- Filling in for and training our Unix system administrators.

February, 1991, to October, 1993
Senior Member of Technical Staff
Tangram Enterprise Solutions (formerly, Rabbit Software Corp.), 7 Great Valley Parkway, Malvern, PA 19355

Senior developer and team leader for Rabbit Software, a small company that developed PC-based SNA networking software, primarily for the UNIX, DOS and Windows environments.

February, 1990, to February, 1991
Computer Scientist
Naval Air Development Center (now the Naval Air Warfare Center in Patuxent River, MD), Warminster, PA 18974-5000

Senior developer and researcher for a department that focused primarily on defining, standardizing and building software engineering environments.

February, 1989, to February, 1990
Navy Resident Affiliate
Software Engineering Institute (SEI), Carnegie Mellon University, Pittsburgh, PA 15213-3890

Selected to serve as NADC's Resident Affiliate to the SEI for one year. Served primarily as a Navy representative on the User Interface Prototyping Project, helping to build a UNIX-based user interface management system (UIMS) called Serpent.

May, 1985, to February, 1989
Computer Scientist
Naval Air Development Center (now the Naval Air Warfare Center in Patuxent River, MD), Warminster, PA 18974-5000

I initially served as a principal member of a team who developed a software engineering environment for System V UNIX.

I also served as system manager for a network of UNIX-based workstations.

May, 1983, to May, 1985
Programmer/Analyst
Financial Automation Corporation, a wholly-owned subsidiary of the Philadelphia Stock Exchange, 1900 Market Street, Philadelphia, PA 19103

Member of the technical staff responsible for maintaining and developing on-line trading system software.

January, 1983, to May, 1983
Adjunct Instructor
Temple University, Philadelphia, PA 19122

As an undergraduate, I taught an introductory Fortran programming course in the College of Engineering.

Publications

Bass, L., Clapper, B., Hardy, E., Kazman, R., Seacord, R. *The Serpent User Interface Management System. Proceedings of the 1990 USENIX Technical Conference.*

Presentations

I periodically give presentations to local user groups. A list of those presentations can be found at http://www.ardentex.com/publications/index.html.

Videos

- An Introduction to Pattern Matching in Scala for New Circle.
- Intro to Spark class (from Spark Summit 2015)
- Intro to Spark Streaming from a Philly Area Scala Enthusiasts (PHASE) meetup.

Patents

Co-inventor: US Patent #6,668,254, *Method and system for importing data.* (Also patented in Europe, patent number EP1227411).

Activities

- Founder of the Philly Area Scala Enthusiasts Scala users group.
- Member and Secretary of the the Temple University College of Science and Technology Alumni Board.
- Mentor in the Temple University College of Science and Technology Owl to Owl mentoring program.
- Co-organizer of the Northeast Scala Symposium.
- Co-organizer of the Scalathon Scala hackathon (2011, 2012).
- Member of the Association of Computing Machinery since 1983.

Miscellaneous

Languages: Java, Scala, Javascript, CoffeeScript, C++, C, C#, various assemblers, Perl, Python, PHP, Ruby, all UNIX shells, HTML, XML, SQL, Emacs LISP

UI technologies: jQuery, GWT

Frameworks: Spring, Django, Ruby on Rails, J2EE

Miscellaneous Tools: Subversion, Git

Cloud computing and related technologies: Google App Engine, Amazon EC2

RDBMS-related technologies: Oracle, SQL Server, DB2, Hibernate, Django (ORM), SQLAlchemy, Squeryl, ScalaQuery, ActiveRecord, Microsoft SSIS (including writing custom components)

Operating Systems: Most flavors of UNIX (including Solaris, HP/UX, AIX; Open Source operating systems such as FreeBSD and Linux); Mac OS X; Windows

Education

B.A., Computer and Information Sciences, May, 1983 (*Magna Cum Laude*)
Temple University, Philadelphia, PA

Elected to Phi Beta Kappa in April, 1983