

# Hugh Brown

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## PROJECTS

### **Galvanize capstone project**

Large extract of bit.ly data (72 GB) of global response to the Germanwings air crash in March 2015 provides insights into internet activity. Data visualizations and topic modeling show how global interest varied by country, time, and timezone.

## WORK EXPERIENCE

### **Absio** (Highlands Ranch, CO)

Software Developer, Feb 2015 - Apr 2015

- ▶ Extended server-side of cryptography application for document sharing using python/flask/redis, Amazon AWS/ansible stack.

### **Amplify** (Brooklyn, NY; remote from Denver since Nov 2013)

Senior Software Developer, Dec 2009 - Feb 2015

- ▶ Developed custom data visualization tools in python.
- ▶ Designed, developed, and tested ETL processes for Oracle-based data warehouse.
- ▶ Developed application for devices (browser, Android, IOS) that updates disconnected data.
- ▶ Developed and maintained flask and pylons server applications.
- ▶ Evaluated deployment and continuous integration technologies for developer workflow.
- ▶ Enhanced for Java/Tomcat web-based UI to data warehouse.

### **Risk Analytics Independent Contractor** (New York, NY)

Self-employed Jul 2009 – Dec 2009

- ▶ Created financial risk analytics for Excel as VB.NET DLLs with LINQ.

### **KBC Financial Products** (New York, NY)

Front Office Rapid Application Developer, VP, Nov 2003 - Nov 2007

- ▶ Completed all elements of project lifecycle including scoping, code development, and delivery to business stakeholders.
- ▶ Enhanced Excel bulk entry trade tools for CDO and CLO.
- ▶ Integrated Moody's CDO analytics into workflow application; developed server process to maintain CDS spread curves.
- ▶ Ported CDO analytics from Windows to UNIX to integrate in enterprise app.

### **Askari Risk Management** (New York, NY)

Software developer, VP, Aug 1998 - Nov 2003

- ▶ Technical team lead managing two contractors, responsible for designing COM architecture for extensible analytics capability.
- ▶ Integrated analytics for bonds, equities, options, and forwards; collateralized mortgage obligations; and option-embedded bonds.
- ▶ Developer in ODBC driver project; made YACC grammar for SQL-like queries against risk data.
- ▶ Designed and implemented ATL-COM interfaces and components for distributed financial application on Windows NT.
- ▶ Designed and developed COM components for regression test suites.

## EDUCATION

### **Galvanize**

Data Science Immersive Program, Oct 2015

### **New York University**

Diploma in Financial Risk Management, 1999

### **University of Toronto**

Honors B.Sc. in Cognitive Science and Artificial Intelligence, 1990

## TECHNICAL SKILLS

Languages: python, C#, C, C++, VB.NET, JavaScript, Excel VBA, scala, julia

Data stack: Apache Spark, python, ipython, numpy, scipy, pandas, scikit-learn

SQL databases: Oracle, Sybase, postgresql, Microsoft SQL Server

NoSQL databases: mongodb, redis

Web servers: Apache, nginx

Web frameworks: flask, pylons, django

Cloud: Amazon AWS, docker, vagrant

Web page: HTML5, CSS3, JavaScript with jQuery, backbone, Google closure, underscore.js

## ONLINE COURSES

### **Udacity**

Introduction to Machine Learning (UD120), May 2015

Design of Computer Programs (CS212), Apr 2014

### **10gen Education**

MongoDB for Developers (M101), Dec 2012

## CONTESTS

**Al Zimmerman's Programming Contests**, Delacorte squares, Jan 2015

Finished 21st of 425 in world, 5th of 99 in USA. Wrote simulated annealing code in python/cython to calculate Delacorte squares. Rewrote in C++, scala, and julia to run code faster.

**Docker Global Hack Day #2 Hackathon**, Oct 2014

Denver winner for project "Snake on a Plane" to allow network-isolated development with docker.

## TECHNICAL EDITING AND WRITING

**O'Reilly technical editor**, Aug - Sep 2014

*Python for Finance: Analyze Big Financial Data* (Dec 2014)

**Brainbench Python 3.3 Test Validator**, Mar - Aug 2013

**O'Reilly technical editor**, May - Aug 2012

*Python for Data Analysis: Data Wrangling with Pandas, NumPy, and IPython* (Oct 2012)

**O'Reilly technical editor**, Aug 2009

*High Performance Python* (not published)

**Computer Language software review**, Aug 1991

*Like a Version* Review of current version control systems: MKS RCS, PVCS, Burton TLib, Sourcerer's Apprentice.