

# Matthew Rathbone

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<http://matthewrathbone.com> (<http://matthewrathbone.com>)

## Overview

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Experienced software engineer with strong software implementation skills and a focus on back-end web technologies. A diverse background gives me advanced abilities in problem solving, research, writing, and interpersonal communication.

## Professional Experience

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### Foursquare, New York NY

Nov 2010 - Present

#### *Software Engineer - Data Infrastructure Team*

- Built and maintained the Hadoop-based offline data processing system.
- Developed a high-throughput log ingestion framework with > 99.99% data fidelity to serve offline data processing systems.
- Designed and built a system for nightly ingestion of database snapshots to serve as inputs to offline processes.
- Built a web-based interface to Apache Hive to allow non-technical users to query production data, schedule regular reports, and visualize their data.
- Worked closely with other engineers to design and produce a suite of software tools to enable easy and testable offline data processing algorithms.

### Drop.io, Brooklyn, NY

May 2010 - Nov 2010

#### *Software Engineer*

- Developed a high throughput and low latency event-data collection & reporting system to allow real-time and offline reporting.
- Developed a scalable distributed user billing system in order to generate accurate charges for api and disk usage.
- The Company was acquired by Facebook

### New York University, New York, NY

Jan 2010 - May 2010

#### *Grader - Graduate Operating Systems*

- Graded programming assignments submitted in C++, Java, Ruby, Python, C, and C# (mono). I used bash and ruby scripting for some grading automation.
- The lab assignments implemented algorithms from code compilation (linking), memory paging, resource allocation and disk-seeking

### Threadneedle Asset Management, London, UK

Aug 2007 - Jun 2009

#### *Software Engineer - Front Office*

- Lead engineering on the development of portfolio management software used to manage hundreds of

millions of dollars of assets. Partnered with analysts, mathematicians, testers, and users.

- Enhanced legacy software using C#, VB6 and SQL Server to integrate with strategic in-house platforms and utilize external APIs.
- Worked in a team to create common order processing APIs in C# using an external processing platform. The API's were used across multiple projects.

## **UBS Investment Bank, London, UK**

**Oct 2006 - Aug 2007**

### *Business Change Specialist*

- Provided structured analysis of internal statistics and processes in co-ordination with global management teams in order to support strategic decision making.
- Played a lead role in the development and deployment of management information systems to meet key business objectives. Delivery was on schedule & within budget.

## **UBS Securities LLC, New York, NY**

**Sep 2005 - Sep 2006**

### *Analyst*

- Led automation initiatives in Visual Basic and Java to improve the accuracy and efficiency of several high-risk processes, in one example reducing daily man-hours from 3 hours to 15 minutes in each affected role.
- Automated departmental management information reporting using client-side scripting languages, incorporating data validation and increasing reporting accuracy.

## **Education**

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### **Courant Institute of New York University, New York, NY**

**2009 - 2011**

#### *MS in Computer Science*

- Awarded the 2012 Matthew Smosna Prize for outstanding academic achievement.
- Highlighted Courses: Parallel Computing, NLP, Machine Learning

### **Northumbria University, Newcastle-upon-Type, UK**

**2001 - 2005**

#### *LLB Law Exempting - 2:2*

- Thesis: "An international study of corporate manslaughter law".
- LPC: Qualified to practice law as a solicitor in England and Wales.
- Highlighted Courses: Intellectual Property Law, Corporate Law, Human Rights Law.

## **Activities**

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### **Public Speaking**

**2009 - Present**

#### *Speaker*

- Hadoop Summit Conference, San Jose (<http://www.youtube.com/watch?v=V07Kuo41A8M>) Jun 2013
- Madison Ruby Conference (<http://www.youtube.com/watch?v=jCzTD2Fpb-Y>) Aug 2012
- Various Meetups - A Selection: NYC Machine Learning, Madison Big Data, Mad Railers

### **Madison Big Data Meetup**

*Co-Organizer*

- Meetup group focusing on big data technologies
- arrange for speakers, lead the meetup, organize funding, lead training, evangelize

**Masters Association of Computer Science**

**Sep 2009 - May 2011**

*President / Officer*

- Enhancing the student experience through collaboration and networking events.

**Charity Committee @ Threadneedle Asset Management**

**2008 - 2009**

*Board Memeber*

- Coordinate with charities, encourage staff participation, arrange funds.