Andi Miller

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Portfolio:	`https://github.com/andimiller/`	

SKILLS AND EXPERIENCE

LANGUAGES

Scala	My current day to day language, both in a Java interoperable style, and in a functional style.
Java	I am familiar with using Java in large teams, and used it for multiple projects at DataSift.
C	Covered during my degree, wrote patches for OpenSIPS and Asterisk while at Gradwell.
Python	My old main language, wrote a lot of personal projects in it including pizza-auth, a large scale LDAP user management tool for EVE Online alliances.
C#	Learnt while at College, used for many personal projects including a network monitor, a few small games, some of which had network capabilities.
PHP	Maintained old PHP webapps at multiple jobs, and for my own services.

TECHNOLOGIES

Stream Processing	Have real world experience building scalable stream processing systems with technologies including Kafka, zeromq and redis at DataSift.
Big Data	Have experience with Hadoop and ELK for storing and indexing large datasets.
Parallel Programming	Enjoy writing parallel processing jobs with tools including Hadoop and spark.
Scalability	I enjoy architecting systems which can scale, this was our primary feature when building systems at DataSift.
Language Development	Have implemented domain specific languages using both ANTLR and flex/bison.
Metrics	A habit I got into at DataSift, I tend to add metrics to everything I write and aggregate them in graphite, grafana or Riemann, I really like having a central dashboard with full statistics available on deployed applications.
Network Protocols	Worked with low level protocols such as SIP and RTC.
Server Admin	Have experience with managing many types of servers, also maintain my own virtual and physical servers for my own projects and online game groups I play with.
Typesetting	Writing up many project reports, and this CV in LaTeX. I have also written a couple of LaTeXto HTML converters.
UNIX and Linux	Have experience developing for and maintaining machines running multiple Linux and BSD operating systems.
Version Control	When coding I've used lots of Version Control systems, including SVN, Git, Mercurial and Bazaar.
Virtualization	I maintain a set of Virtual Machines for testing personal projects, and have experience administering KVM and OpenVZ clusters.
Web Development	I run multiple websites in my spare time, and am familiar with modern web development practices including HTML5, CSS, Websockets and Scala.js.

EDUCATION

B.Eng. Software Engineering, Aberystwyth University, 2009 - 2013.

2:1
Averaged over 70% in core Programming modules.
did Artificial Intelligence modules

Alton College, Alton, Surrey 2006 - 2008

A-Levels: Further Maths - C, Maths - A, Physics - B, Computing - A.
AS-Level: Electronics - B.

EMPLOYMENT

Software Engineer, DataSift (MediaSift Ltd.), June 2013 - Present

Worked in an agile team developing Scala microservices.
Practiced agile test driven development in a team.
Developed an in-house Domain Specific Language for transforming JSON using ANTLR and Scala.
Maintained client-facing API libraries and their documentation.
Developed an ingestion pipeline and JSON transform engine to allow users to bring their own data.
Maintained services in PHP, Scala, Java, Python and Go.

VoIP Engineer, Gradwell dot com Limited, June 2011 to July 2012.

Maintained and developed one of the largest award-winning Open Source VoIP stacks in the UK.
Regularly worked with both Support and System Administration departments.
Worked in a variety of languages, including Perl, C, Python and Ruby.
Worked in an engineering team using Jira and Mercurial.
Re-engineered the existing VoIP stack to work across multiple data centres.
Maintained and expanded on deployment infrastructure, reducing deployment time of a cluster from 10 hours to 1.

Freelance Coder (Google Summer of Code), Google, Summer 2010.

Did experimental work on integrating Jokosher and Pitivi
Worked to a strict deadline
Integrated into the community
Learned many new technologies, including:
DBus
GTK
Bazaar

REFERENCES

Available on request.