




# Andrew K.M. Miller

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## PERSONAL DETAILS

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## WORK EXPERIENCE

### Engineering Experience

*Cloud Services Engineer at Ocado Technology* **Jan 2013 - Present**

Moved to the newly created Cloud Services team, to enable the creation of the Ocado Smart Platform using the AWS and Google Cloud offerings. Gained experience with AWS, in particular Elastic Beanstalk, IAM, CloudFormation and EC2 (Baked AMIs). Also worked on the Apigee Edge platform to securely expose internal applications out to apps running on Google. Currently working on a hybrid platform for new warehouse systems; this has Docker and Mesos at it's core which will allow developers to deploy across cloud and on-premise environments. Additionally, in a team responsible for reviewing CVs and interviewing new candidates.

*Infrastructure Developer at Ocado Technology* **Sept 2011 - Jan 2013**

Joined the Unix and Network team as a developer to automate manual provisioning processes and improve existing tooling. This included a DNS configuration tool, automated access control to servers and the automated configuration of applications and servers using Puppet and LDAP. These tools and automated processes were used to provision pick stations in Ocado's first Non-Food Distribution Centre and the application deployment of fetch.co.uk, Ocado's first dedicated department store website.

*Undergraduate Researcher at Imperial College London* **Summer 2009**

Worked for 2-3 months with PhDs in the Imperial College EEE Robotics Lab and began work on a project on an autonomous remote control helicopter

## EDUCATION

Imperial College London

*MEng, Information Systems Engineering* **Sept 2007 - July 2011**

Degree Class: 2.1

Bristol Grammar School

*A Levels* **Sept 2000 - Aug 2007**

Two A's (Mathematics and Physics)  
Two B's (Further Mathematics and Computing)

Other Courses

*Internal Web Security Course at Ocado* **July 2014**

*Google Cloud Qualified Developer* **Feb 2014**

*Human Computer Interaction on Coursera* **Sept - Nov 2012**

*Functional Programming Principles in Scala on Coursera* **Sept - Nov 2012**

*Beginners Graphic Design at UAL: Central St. Martins* **Jan - Mar 2012**

## PROJECTS

### Individual

Developed automated AWS AMI builds using packer, Puppet to provision the machine and bash to manage the build process.

Developed Django applications that are used as a self service for access control for applications within Ocado Technology. Additionally implemented a front-end framework to develop a recognisable brand for Infrastructure related applications within Ocado Technology.

Implemented an expandable application deployment framework using Puppet to allow automated deployment of Tomcat, Django and native Java applications. This included modifying open source Puppet modules for internal use.

Developed a Tomcat and Java Puppet module to be used with the above framework. These were designed to have fully customisable configuration, deploy the application files straight out of a centralised Maven repository and control the running of the application.

### Group

In a team of five, implementing a cross-environment platform (on-premise, AWS, Vagrant) using Mesos as an initial base, that can deploy multiple docker containers from declarative configuration with automated logging, discovery and load balancing.

Developed and implemented the hardware and support software for pick stations used in the first Ocado Non-Food Distribution Centre.

Jointly developed a Django Puppet module, running with apache and virtualenvs enabling quick deployments and fully customisable configuration.

Large collaborative effort focusing on the language evolution and leadership of independent agents within the setting of two player binary games, primarily the game of chicken.

**TECHNICAL SKILLS** Advanced: Python (Django and Flask/Jinja2), HTML/CSS, Puppet, AWS APIs (IAM, EC2, S3, Cloudformation, Elastic Beanstalk, ELB, STS), Packer  
Intermediate: Javascript (jQuery, Angular.js, d3), Bash, VCS (SVN,GIT), SQL, C/C++, TeX (LaTeX, BibTeX), MATLAB, Jenkins, Docker, Google Cloud, Mesos, Marathon, Consul, Vagrant, Apigee, Jira,  
Beginner: Ruby, Java, Scala, Coffeescript, Load Balancers (F5), DHCP, Maven, Tomcat, PHP, VHDL, ARM Assembler, Photoshop/Gimp, GNU make

### OTHER SKILLS

Clean driving license since September 2007

Developed leadership skills when new members of the team join, when team leads have been absent and participating in group projects during my degree.

Teamwork and communication skills enhanced through group projects at University, demoing new features to stakeholders, interviewing potential new candidates and providing support and expertise for tools created and services used by the team.

### HOBBIES AND INTERESTS

Completed my Duke of Edinburgh Bronze and Silver Award. Enjoy outdoor pursuits such as rock climbing, skiing and cycling. Achieved grade 5 clarinet. Interested in photography, graphic design, building bikes, learning new tech and remote control helicopters/Unmanned Aerial Vehicles. Enjoy TV, board games, card games, video games and a good pint in the pub.

### REFERENCES

Available on request