

Ian Duffy

Senior Devops Engineer



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Dublin, Ireland

I am passionate about automation, cloud, continuous delivery, infrastructure and security. I want to be part of building great experiences for developers and their applications journeys to production.

EXPERIENCE

Present

Aug 2021

Senior Devops Engineer

Spin Scooters

Working on providing internal tools to assist developers as they move software from development into production.

Assisted with a Github to Gitlab Migration, I had large input on developing the terraform and helm configuration for maintaining the Gitlab installation as well as configuring and templating CI pipelines.

Created a service to vend temporary AWS credentials into Gitlab CI pipelines avoiding the need to have static AWS access keys.

Added windows runners to gitlab CI via windows nodes on AWS EKS.

Senior Devops Engineer

Zyte (Formerly ScrapingHub aka the founders of Scrapy)

I was responsible for everything infrastructure related for Zyte's AI powered Data Extraction Service.

Broke the ground for Kubernetes based infrastructure at Zyte. I moved the Data Extraction Service from Mesos on baremetal to Kubernetes on Google Cloud Platform. Along the way, I defined the automation toolset (helm, helmfile, sops) used at Zyte for bootstrapping new Kubernetes clusters along with the core services (ingress, monitoring, logging, dns, etc.) and added support for zero downtime deployments.

Upgraded CI services from an old version of drone.io to an opensource fork. This system was designed in such a way that it would scale out its build queues on Google Compute Engine and efficiently use local SSDs for storing docker cache layers to ensure fast builds. While doing so, I standardised all CI definitions into a common place resulting in most repositories CI definition being less than 4 lines.

Made the decision and all necessary migration work to delegate all our Apache Kafka needs to Confluent.Cloud, working closely with their account managers to ensure we got the best possible deal.

Aug 2021

March 2019

Built data pipelines to aggregate events across the system into Google BigQuery and eventually into Google Datastudio to enable people to understand how customers were using the system.

March 2019

Apr 2018

Senior Software Engineer

Shipyard Technology Ventures

I developed a control plane on-top of managed Kubernetes services, primarily focused on Google Cloud Platform but with support for Amazon Web Services and Azure. The control plane is responsible for defining a base Kubernetes configuration, this included provisioning SSL certificates (CertManager), Monitoring (Prometheus), Ingress (Nginx), Integration with Cloud Provider Resources via Service Brokers, and DNS provisioning (external-dns). From this base configuration, it created all the necessary environments and a developer tooling cluster which provided Source Control Management (GitLab) and CI/CD (Jenkins) to each of the environments. The control plane was developed with Spring Boot in an API first approach with Swagger.

I designed an Identity access management solution on top of Keycloak. This provided single-sign-on via SAML and OpenID for internal applications. Additionally, it was used to supply user management for any developed products.

Working at a startup supplies a highly dynamic environment which allowed for the opportunity to work in areas I wouldn't normally - Managing the Office WiFi, creating setup scripts for developer workstations, Managing Office 365, Creating proof of concept user interfaces with VueJS and Material Design

March 2018

Nov 2016

Senior Software Engineer

Zalando SE

My area was focused on extracting fashion insights from the world wide web. My team was responsible for building the web crawler. The web crawler's role was to schedule pages to crawl, fetch the pages, classify the pages as fashion articles and parse all articles to extract the article date, article author, article content, and article relevant images. The system ran on AWS and was built up of many components written in Scala and linked by Kafka which was heavily utilized for data streaming, aggregation, and persistence.

Oct 2016

Contractor / Senior Cloud Engineer

Aug 2015

Allied Irish Banks

Worked on providing a Platform as a service and Continuous Delivery capabilities on top of OpenStack, AWS, and Azure by bringing together many opensource utilities such as Chef, HashiCorp Terraform, and Packer, Jenkins, and ElasticSearch.

Aug 2015

July 2015

Software Development Engineer

Amazon Data Services

I was part of the CloudWatch team responsible for the aggregation and storing of historical log data. Resigned quickly due to culture fit issues.

June 2015

Sept 2013

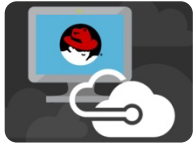
Apache Project Management Committee and Committer

Apache Software Foundation - CloudStack

Apache Cloudstack is opensource software designed to deploy and manage large networks of virtual machines, as highly available, highly scalable Infrastructure as a Service cloud-computing platform.

My role as a PMC member and committer involved participating on mailing lists, software development, assisting with product growth and community.

PROJECTS



Comprised the Azure RedHat Enterprise Linux estate

Microsoft online services bug bounty

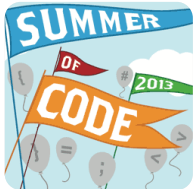
Discovered issues with the RedHat Enterprise Linux (RHEL) update delivery mechanism within Azure that if exploited had the potential to grant full root access to all RHEL virtual machines within Azure. Additionally, a second issue allowed elevation from root on an instance to storage account administrator.



CarCloud

DCU Final Year Project

CarCloud is a mobile and web based application that focuses on supplying car owners with access to trip information and enables them to set alerts for specific trip events. This was displayed as points on a map, each point having various metrics associated with it, including speed, RPM, mileage, stopping time, etc.



Automated Apache Cloudstack Environment

Google Summer of Code 2014 – Apache Cloudstack

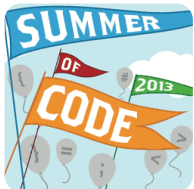
As part of Google Summer of Code I worked with Apache Cloudstack. It is a private cloud management platform. My project involved using chef and vagrant to automate the creation of a Cloudstack cloud.

The end result provided developers with a straight forward, fast, and easy way to virtualize a full Cloudstack cloud on their machine.

LDAP authenticator for Apache Cloudstack

Google Summer of Code 2013 – Apache Cloudstack

This feature involved extending the Cloudstack authentication engine to support LDAP as a backend for authentication. Additionally to this, it provided administrators an automated way to provision their LDAP users onto their cloud.



EDUCATION

Dublin City University

B.Sc in Computer Applications

Throughout my time in DCU I maintained a first class honours (1.1) grade for every academic year.