

Patrick Cockwell

Software Engineer

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I graduated University of Waterloo with a Bachelor of Software Engineering and am very interested in DevOps, infrastructure management. I also have a strong interest in internal engineering enablement through the development of tooling and processes to improve the productivity and velocity of a development team.

SKILLS AND QUALIFICATIONS

Tools and Software

- Familiar with several **Amazon Web Services** tools including **S3**, **EC2**, **Route53**, **IAM**, and **Lambda**
- Familiar with several **GCP** tools including **Cloud Storage**, **Bigquery**, **Kubernetes Engine**, and **IAM**
- Well versed with infrastructure management tools such as **Terraform** and **Ansible**
- Solid understanding of **ETL** and **Data Warehousing** platforms including extensive usage of **Airflow**
- Frameworks/Toolkits: **Ruby on Rails**, **Django**, **CodeIgniter**, **Laravel**, **Kata (PHP)**, **jQuery**, **Twitter Bootstrap**, **Pylons**
- Operating Systems: **Linux**, **Mac**, **Windows**

Languages

- **Ruby**: Approximately 2.5 years of development for web application and data management purposes in the workplace
- **SQL**: Over 9 years of experience working with tools including **MySQL** and **PostgreSQL**
- **Python**: Over 5 years of usage and experimentation for scripts and ETL platforms
- **Terraform**: Approximately 1 year of experience working against AWS and GCP resources
- **PHP**: Over 4 years of experience obtained working on projects including Orion, AuToDo, RoomClerk, and various analytics dashboards
- Very experienced with **HTML**, **CSS**, **Javascript**

Other Qualifications

- Have resided in **Velocity**, an exclusive residence incubator focused on **entrepreneurship** and **technology** for 4 terms
 - Comfortable working in team environments and very experienced working on small teams
 - Passionate about computer programming, gaming, and particularly DevOps and infrastructure management
 - **Fully bilingual**, and fluent in English and French
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RELEVANT PROJECTS

Terraform GCP Infrastructure Management

Infrastructure Stability & Rapid Deployment

Sept 2019 - Dec 2019

- Used Terraform to create reusable modules representing common architecture components
- Analyzed and determined appropriate user permissions levels to restrict widespread access to resources unless necessary
- Autonomously brought project from inception, through proposal, design, implementation, testing and release

Availability Zone Disaster Recovery Test Infrastructure Stability/Disaster Planning

Dec 2016 - Feb 2017

- Used Terraform and Ansible to normalize our infrastructure across 3 AWS Availability Zones
 - Helped develop a process to simulating an Availability Zone outage, and expected recovery actions
 - Ran an AZ outage simulation on production environment with no adverse or lasting effects on application performance and uptime
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WORK EXPERIENCE

Freefall Consulting Inc.

Owner/Contractor/Developer

June 2020 - Present

- Working on prominent edX open-source software project
- Provisioning infrastructure and codifying architecture in Terraform module code
- Development using ReactJS for new large-scale UI redesign

Flyr Inc.

Data/DevOps Engineer

May 2018 - Mar 2019

- Led the development effort for the Flyr ETL platform
- Designed, vetted, and built out a custom schema used to standardize data schemas for a variety of airline clients and their data
- Implemented a full redesign of GCP resource architectures using Terraform that enabled deployment of new client infrastructure on demand

Agari Data Inc.

Software Engineer

May 2016 - Apr 2018

- Helped coordinate and successfully executed AWS Availability Zone Disaster Recovery Test
- Built multiple application reliant integrations with different AWS services (Route53, S3, Lambda, RDS, Kinesis)
- Member of engineering enablement team tasked with infrastructure management via Terraform/Ansible and developing internal tooling to improve development process and velocity of teams working on core products

Breeze Labs Inc.

Software & Data Engineer

Mar 2015 - Apr 2016

- Developed multiple integrations with complex external APIs to gather data ranging from credit reports to vehicle locations and mileage
 - Single-handedly managed and enhanced the entirety of the data and analytics infrastructure
 - Built many tools to improve the accuracy and reliability of reports to investors and external interests
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EDUCATION

University Of Waterloo

Bachelor of Software Engineering (BSE)

Sept 2009 - Mar 2015

- Received a total of 2 years of workplace experience through the University of Waterloo Co-op Program
- Course work included Data Structures and Data Management, Algorithms, Concurrency, Database Management, Numerical Computation, Artificial Intelligence, Cryptography and System Security, and Computer Intelligence