# 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

## 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

**Flyr Inc.**
**Data/DevOps Engineer**                                          May 2018 - Mar 2019

- Led the development of 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 - Present

- 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

**Hearsay Social Inc.**
**Software Engineer**                                             Jul 2014 - Feb 2015

- Designed and developed a Data Warehouse product, including Extract-Transform-Load process, using S3, Redshift, and custom Python code
- Worked to parallelize extraction and transformation of data to improve speed and efficiency
- Incorporated heavy data security constraints imposed by clients and business model

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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