

# David Liao

Cloud Software Engineer

davidliao.ca



hi@davidliao.ca



github.com/liocanada



## Certifications

- **AWS Solutions Architect - Associate** (2020)
- **AWS Cloud Practitioner** (2019)
- Oracle **Java SE 8 Professional** (2019)

## Skills

### Infrastructure

- **Amazon Web Services** (certified)
- Terraform
- Ansible

### Programming Languages

- Java 8 (certified)
- JavaScript/TypeScript

### Web Development

- React
- Node.js
- Spring Framework

## Involvement

### Community

- **AWS Educate Student Ambassador** (first cohort)
- Peer Mentor @ Science Student Success Center
- VP Communications @ Carleton CyberSec Club
- Ex-Teaching Assistant

### Professional Development

- AWS Public Sector Summit
- cuHacking
- BSides CTF, MetaCTF

## Education

### Carleton University

#### Bachelor of Computer Science

Algorithms/Data Structures,  
Object-Oriented Programming

Sept 2018 to April 2023

GPA: 11.9/12.0

## Work Experience

### Coveo

Sept 2020 to Dec 2020

#### Cloud Infrastructure Intern

- Managed and versioned **AWS infrastructure as code** using **Terraform** to consistently support 5 microservices across multiple environments
- Transitioned an **ECS container cluster** from using only on-demand instances to using an **auto-scaling spot fleet**, saving over 20% of its operating cost while maintaining the original processing power
- Collected key **metrics** from running services and instances using Hosted Graphite and the AWS CloudWatch Agent, providing more accurate **insights on customer experience and system health**
- Configured **golden AMIs** running Windows Server 2016 using **Packer** and **PowerShell scripts**, which were used to launch new instances
- Developed **unit tests** when implementing new features and bugfixes

**Environment:** Java, Terraform, PowerShell, C#, AWS EC2, ECS, Lambda, API Gateway, RDS, CloudWatch, CloudTrail, Docker, HashiCorp Packer, Ansible, Hosted Graphite, Spring, ASP.NET Core, Mockito, Spinnaker, Jenkins

### NewPush

June 2019 to Dec 2019

#### Developer Intern

- Transformed large amounts of data and served it to clients through 12 **web APIs**, while providing **live documentation** using Swagger
- Reduced API request times by 90% by implementing a **data cache** for commonly requested data
- Used Jira in an Agile lifecycle to enhance team focus and coordination

**Environment:** TypeScript, Node.js, Nest.js, Swagger, Angular, Jest, Supertest, Docker, Jenkins, Jira, Bitbucket, Confluence

### New Portal Corp

Feb 2018 to May 2018

#### Software Developer Co-op

- Developed an **employee management system** to be used by the Human Resources department using Spring MVC and JSP/Servlet
- Built and configured an Ubuntu Linux VM instance on Google Cloud Platform, and **deployed** the web application onto it

**Environment:** Java, JSP/Servlet, HTML5, CSS, Bootstrap, Spring MVC, Spring Security, Hibernate, MySQL, Google Cloud Platform, Apache Tomcat

## Projects

### Online E-Commerce Bookstore



Developer + Infrastructure Engineer (Team of 2)

An imitation serverless e-commerce bookstore, with insights on sales data.

**Environment:** JavaScript, React, React-Router, Next.js, AWS API Gateway, Lambda, Aurora Serverless, S3, CloudFront, Route 53, Cognito, Batch scripts

### CareerCounsel



Lead Developer (Team of 2)

A tool that generates insightful statistics based on real-time job postings, to help job seekers make better career decisions.

**Environment:** JavaScript, React, Cheerio, AWS EC2, Lambda, S3, Code-Pipeline, Route 53, Google Domains