David Liao

Cloud Software Engineer

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github.com/liaocanada

Education

Carleton University
Bachelor of Computer Science
Computer and Internet Security
Sept 2018 to **May 2022**
GPA: 11.9/12.0 (3.9)

Certifications

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

Skills

Infrastructure
- **Amazon Web Services** (certified)
- Terraform
- Ansible
- Linux/Windows Server

Programming Languages
- Java 8 (certified)
- JavaScript/TypeScript

Web Development
- React
- Node.js
- Spring Framework

Involvement

Community
- AWS Educate Student Ambassador
- Peer Mentor @ Science Student Success Center
- VP Communications @ Carleton CyberSec Club
- Teaching Assistant

Professional Development
- AWS Public Sector Summit
- cuHacking Hackathon
- BSides CTF, MetaCTF, JustCTF

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, HTML 5, 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 to help job seekers make better career decisions.
Environment: JavaScript, React, Cheerio, AWS EC2, Lambda, S3, Code-Pipeline, Route 53, Google Domains