Caroline Lily Yu

Seeking Software Engineering Internship / Co-op | US Citizen

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Portfolio Website: https://carolinelilyyu.github.io/portfolio/v1/

EDUCATION

Northeastern University — **Present**
MS, Computer Science — **Graduation:** 5/2025

University of Massachusetts, Amherst — Current GPA: 3.3
BS, Computer Science — **Graduation:** 5/10/2018
Courses: Programming Design Paradigm, Web Development, Single Page Web Applications, Machine Learning, Practice and Applications of Data Management, Advanced Applied, Linear Algebra, Interactive Learning Agents for Games, Software Engineering, Artificial Intelligence, Robotics, Computer Graphics, Mobile Health Sensing and Monitoring, JavaScript Game Development, Algorithms

PROFESSIONAL SKILLS

- Ruby, Rails, Python, GoLang, Java, React, Javascript, NodeJS, HTML, CSS, SQL, ImpactJS, C/C#/C++
- *Frameworks / Platforms*: Django, Grafana, Functions, Postman, Heroku, Digital Ocean
- *Database*: MySQL, Google BigQuery, Oracle Database (18c/19c/Autonomous), MongoDB, Postgres
- *Cloud*: AWS, EC2, SQS, S3, GCP, Oracle Cloud, Serverless Computing
- *DevOps*: CloudFormation, Terraform, Maven, Artifactory, Kubernetes, Docker, JIRA, Packer, Jenkins, CI/CD
- *Web Servers*: Gunicorn, Nginx, Apache
- *Other*: GUI, Photoshop, After Effects, Clip Studio Paint, GraphQL, Bitbucket, GitHub, Android Studio, OpenGL, VMWare, PyTorch, ROS, Tensorflow, Unity, SignalFx, Honeycomb, Telemetry, Game Dev, Agile

CERTIFICATIONS / AWARDS

Front End Web Development Graduate Certificate — Certification Achieved: **Ongoing**
Amazon Web Services Certified Developer - Associate Certificate — Certification Achieved: **7/31/17**
Validate at: http://aws.amazon.com/verification — *Verification code:* T3981XBCK1R110GS
Oracle Cloud Infrastructure Certified Architect Associate — Certification Achieved: **12/20/18**
Validate at: https://www.youracclaim.com/badges/40dc5d7c-51ad-4682-9df4-34fd03fe28a9/public_url
Employee of the Semester (IT Services) — Award Achieved: **12/2015**
Oracle Solution Hub Collaboration Award — Award Achieved: **7/10/18**

TECHNICAL EXPERIENCE

Unity, Cambridge, MA — **9/2021 – 12/2022**
Software Engineer II – Measurement

- Architected and coded a secure way for our tracking partners to send postbacks to some endpoints and APIs using **asymmetric** keys using **Ruby on Rails**. Worked closely with the security team and PMs to create an in-depth white paper for our tracking partners.
- Added a feature called Multi Reward Cost Per Action to our main offerwall product, which allowed users to complete and track multiple different tasks in order to gain rewards.
- Refactored outdated code to follow a more Object Oriented Programming approach for our attribution conversion flow.
- Responsible for attribution, conversion flow, and tracking using **Google BigQuery, GraphQL, Ruby on Rails**.
- Onboarded Measurement team to **Honeycomb** logging and made **SignalFx** alerts.

- Made frontend and backend changes on the offer details page for our internal testing platform.
- Created a productivity management tool for the company-held Hackathon using **HTML5** and **CSS**.

Oracle Corp., Burlington, MA   **8/2018 – 9/2021**
Software Engineer II – Cybersecurity/Cloud/Backend

Developed API's for the Vulnerability Scanning Service and Threat Intelligence project

- Wrote unit tests for our control and data plane in **Java** for multiple use cases.
- Adopted **microservice** architectures in projects, which included multiple different services including Oracle Streaming, Queueing, Autonomous Database, Events, Networking, API Gateway, Object Storage, etc.
- Programmed in an **Agile** environment using **Go** code that sends and reads scan data from our queue.
- Wrote **Terraform** to deploy our infrastructure code and was also part of the **DevOps** Platform team.
- Onboarded and wrote the **Java** code for our **end-user tests** that run every 10 minutes from our customer/service enclave.
- Wrote part of the **SQL** database code for our objects from our data plane.
- Developed multiple metrics, alarms, **Grafana** dashboards, runbooks and logs for our application's health and took active part in our 24/7 hour on-call rotation.
- Partook in the architecture design of two security projects.

Solution Engineer – App Dev/IaaS

- Coded 10,000 Monkeys, a full-stack web-app that uses **Kubernetes**, Oracle's **server-less** platform, Functions, **Oracle Rest Database Services**, **SQL**, **Python**, **Vue.JS**, and **Docker** to simulate enterprise workloads and thousands of virtual users making transactions on Oracle's Autonomous Database**.**
  o Served as team lead.
  o Gave an external facing **Tech Talk**, which is available at https://go.oracle.com/LP=83826.
  o Demonstrated application to customers nationally in Canada and USA**.**
- Programmed backend in **Python** for Reverse Engineering, a tool used to collect info of all cloud resources on a cloud account and generate **Terraform**, so you can provision cloud resources in different accounts.
  o Served as co-team lead for the backend team.
  o Demonstrated to Enterprise Cloud Architects.
- Developed a full-stack prototype web-app connecting to Oracle's Autonomous Database for a customer, Recycling Council of Ontario; the app was written in **Django** and hosted on a **Compute** instance.
- Wrote custom **Terraform** scripts and gave technical workshops for customers, such as PepsiCo, PwC, etc.
- Architected disaster recovery solution and helped perform an "on-premise to cloud" migration for Horizon, using **VMWare** to move their Exchange SQL servers to the cloud.
- Contributed to write open source OCI **API** library for cloud native language **Ballerina** with Ballerina **Docker** containerization for Oracle's open-source server-less platform, Fn project.

Hewlett Packard Enterprise/Cloud Technology Partners, Boston, MA   **5/2016-8/2017**
Software Engineer Intern

- Automated infrastructure as code for contractor company in Ukraine with **CloudFormation** and **Docker** to provision a fault tolerant solution to run **Jenkins** server and have data persist on an Elastic File System.
- Used **Terraform**, **Packer**, and **Chef** to bake an AMI and create an auto scaling group and EC2 Container Service environment to transfer data.
- Used **NodeJS** and **React** to create an on-boarding web application implementing Microsoft Azure API, Google API, JoinMe API, Confluence API, and Slack API.
- Programmed and designed 3 **Google Apps scripts** for Operations Team.
- Wrote tests with **Selenium** and **CI** platform**, Jenkins,** to test multi-browsers for AppVista.
- Served as head of the company's IT Technician/Department and personally assisted the CEO.