

# Gerald Wu

Software Engineer · Computer Science · IT

## Skills

**Programming** Java, C, GoLang, C++, Python, SQL  
**Other** Red Hat Certified, VMWare vSphere/vSAN, Kubernetes, Docker, Ansible, LaTeX, Git

## Education

**2017 - 2021** **Brown University**  
Sc.B. Computer Science, A.B. Applied Mathematics

## Experience

**Jun 2021 - PRESENT** **Software Engineer**  
Google

- Pre-purchase modeling under YouTube Commerce

**May 2020 - Aug 2020** **Software Engineer Intern**  
Amazon Web Services (AWS)

- Worked with the **Amazon Connect** team — a **cloud-based** call center as a service product running on **AWS**
- Built a deployment pipeline for **Safe Dynamic Config (SDC)**
  - Implemented strict templating and config generation to allow for configuration as code
- Created library from scratch to pull deployed **SDCs** from remote and parse them for **Feature Access Control (FAC)** (Java)
  - Part of an existing effort to migrate **Feature Access Control** from a flat config file in **S3** to a fast, compartmentalized, safe, dynamic config **deployment as code**

**Sep 2019 - Dec 2019** **Computer Science Teaching Assistant**  
Brown University

- Undergraduate teaching assistant for CSCI 1270: **Database Management Systems**
- **Intermediate-level** CS course that covers both database design and theoretical database concepts

**May 2019 - Aug 2019** **Software Engineer Intern**  
Leidos

- Part of software development team working on **autonomous** (self-driving) sea vessels (C++/Python)
- Core member of **systems architecture** team for next-gen virtualization approach (VMWare/Red Hat/Kubernetes)
  - Researched, evaluated, proposed, and implemented various architectures involving **VMWare** clustering, VMWare **vSAN**, Red Hat **OpenShift**, and **Kubernetes**
  - Final proposed systems architecture approved for implementation
- Major contributor of **software migration** process from Red Hat 6 to 7 (C++/Python)
  - Significant code rewriting to fit a **microservice** approach

**Sep 2018 - Dec 2018** **Applied Mathematics Teaching Assistant**  
Brown University

- Undergraduate teaching assistant for APMA 0340: Methods of Applied Mathematics II
- Applied math course that covers both **non-linear ordinary differential equations** and **partial differential equations**

**May 2018 - Aug 2018** **Software Engineer Intern**  
FMS Inc.

- Cluster analysis in **large-scale graphs** (C#)
  - Researched, implemented, and optimized the **Markov Clustering Algorithm** (MCL) to identify clusters in relational graphs of size **100,000+** nodes and **120,000+** edges in less than **10 minutes**
- Implemented secure, PCI-compliant payment integration on the web using Authorize.Net (ASP Classic)
  - Complete integration with the **Authorize.Net** payment gateway, including both **one-time** payments and long-term customer **payment profiles**