

# Xing Du

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## EXPERIENCES

**Salesforce.com Inc, San Francisco, CA**

**Jan. 2020 - Now**

*AMTS Software Engineer at Sales Cloud Einstein Activity Platform SRE team*

- Manage and provision data center through Infrastructure as Code (IaC) using HashiCorp tech stack (**Terraform**, **Nomad**, **Consul**, **Vault**) and **AWS**; Troubleshoot with ACL system reset and Nomad outage recovery; Carry out hot fix to enable service access by modifying inbound rules for ELB security group.

**Salesforce.com Inc, Cambridge, MA**

**Jun. 2019 - Aug. 2019**

*Software Engineer Intern at Commerce Cloud Einstein*

- Worked at the infrastructure team that builds and operates large-scale recommendation system, which supports over 700 business and over 2000 websites, using **AWS**, **Terraform**, **Docker** and **Kubernetes**.
- Developed a tool that enables data scientist to test recommendation strategies directly with real-time recommendation service, by creating or updating containerized data science models onto AWS ECR; Implemented server-side code in **Node.js** to handle HTTP request from realtime service to model containers.
- Deployed model containers on AWS EKS cluster using Terraform, Kubernetes and **Helm**: Created deployment and service for model containers managed in pods; Configured routing to the corresponding service with ingress controller; Applied network policy to prevent unwanted traffic from model container pods into database.
- Created a new strategy to bundle EC2 target groups that speed up code deployment for realtime recommendation web service by more than 50%; Refactored existing Infrastructure as Code by migrating bash script to Terraform.

**Kuebix, Maynard, MA**

**Jun. 2018 - Dec. 2018**

*Software Developer Intern*

- Built cloud-based **SaaS** Application using Salesforce tech stack (**VisualForce**, **Apex**) and **AngularJS** following **Agile** methodology and branch-based Git workflows.
- Developed responsive UI using Bootstrap, **jQuery** and Javascript Remoting for Apex Controller, connect frontend with data model by **two-way data-binding** using **KnockoutJS**.

## EDUCATION

**Northeastern University, Boston, MA, USA**

**Sep. 2017 - Dec. 2019**

**M.S. in Computer Science GPA 3.71**

**Courses:** Algorithm, Computer System, Web Development, Database, Parallel Data Processing, Programming Language

**Peking University, Beijing, China**

**Sep. 2009 - Jul. 2013**

**B.S. in Biological Science GPA 3.42**

## PROJECTS

**Cloud-Native High Performance Computing**

**Sep. 2019 - Dec. 2019**

- Provided simple, user-friendly command-line scripts to setup High Performance Filesystem Lustre on Kubernetes, to make Lustre portable across different cloud platforms and automate its deployment, elasticity and management.
- Created Docker image to boot virtual machines for Lustre components, managed VMs in Kubernetes pods with Kubevirt, provided startup script to automate Lustre configuration and bootstrap.
- Performed benchmarking to evaluate I/O and metadata performance on non-k8s and k8s based Lustre.
- Explore Kubernetes storage solutions and the Rook framework which provides features such as bootstrapping, autoscaling and tolerance to node failures, for the Lustre infrastructure.