Xing Du

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EXPERIENCES

Salesforce.com Inc, Cambridge, MA **Jun. 2019 - Aug. 2019**

Software Engineer Intern at Commerce Cloud Einstein

- Work at the infrastructure team that builds and operates large-scale recommendation system, which supports over 700 business and over 2000 websites, using **Python**, **Node.js, Cassandra, 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 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 (**VisualForce, Apex**) and **AngularJS** following **Agile** methodology and branch-based Git workflows.
- Developed responsive UI using Bootstrap, **jQuery** and 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.

TECHNICAL SKILLS

Programming Language: Java, Javascript, Scala, Apex, VisualForce, C, Racket, Go
Library / Frameworks: Terraform, Docker, Kubernetes, Spring Boot, Node.js, express, jQuery, KnockoutJS, Hadoop, Spark
Tools / Database: JIRA, Git, Tomcat, Maven, MySQL, PostgreSQL, Redis, Cassandra, MongoDB
Cloud Platform: AWS (EC2, EMR, S3, EKS, ECR), GCP (GCE, GAE, BigTable, BigQuery)