

Danke (Douglas) Luo

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Software Engineer – *Seeking a summer 2018 internship*

EDUCATION

Carnegie Mellon University, School of Computer Science

Sep. 2017 – May. 2019

Master of Entertainment Technology

University of Electronic Science and Technology of China

Sep. 2004 – Jun. 2008

Bachelor of Software Engineering

SKILLS

Programming Java, C#, Python, Bash, ActionScript

Software & Platform Linux, AWS, Azure, GCP, Hadoop, MapReduce, Docker, Kubernetes, Perforce, Git

ACADEMIC PROJECTS

Frankenstein, VR Exhibit (CMU, PA) – *Software Engineer*

Jan. 2018 – present

- Collaborated in a team of 7, explored novel mechanics for storytelling in VR, using Oculus and C#
- Built 4 first-person experiences as a part of an exhibition shown to public in CMU's campus
- Implemented a programming framework called game flow using data structure queue to organize game events, built an event system based on C# delegate, developed a tool to edit game flow sequence

Big Data Analysis with MapReduce (CMU, PA) – *Software Engineer*

Jan. 2018

- Course project of Cloud Computing (15-619)
- Completed sequential data analysis utilizing AWS EC2 service on a 500M text dataset
- Conducted parallel analysis on a 300G text dataset with AWS EMR Hadoop Streaming
- Refactored Python code structure for sequential analysis, improved the runtime from 60s to 10s
- Implemented mapper and reducer with Java and executed MapReduce task with AWS services

Autoscaling & Container Cloud Service (CMU, PA) – *Software Engineer*

Jan. 2018 – Feb. 2018

- Implemented a load balancer with Python for Microsoft Azure to handle 3000 RPS
- Implemented a load balancer with Java for AWS to handle 4000 RPS and implemented autoscaling strategies for AWS ELB and EC2 services to handle horizontal scaling automatically
- Deployed containerized web application for interpreting and running python programs to Azure and GCP clusters and managed automatic deployment of containers using Docker and Kubernetes
- Implemented a video processing pipeline using AWS Lambda, Rekognition and CloudSearch services

Building Virtual World (CMU, PA) – *Software Engineer*

Sep. 2017 – Dec. 2017

- Built innovative virtual worlds on brand new platforms every two weeks with a different team of 5
- Worked with various platforms like HTC Vive, Oculus Rift, Apple ARKit and Hololens

WORKING EXPERIENCE

37 Games, Software Engineer

Jun. 2016 – May. 2017

Kingnet Games, Software Engineer

Jan. 2012 – May. 2015

- Shipped 4 browser game titles “Lineage II : Awaken”, “Shu Shan Legend”, “Running Warrior” and “The Legend of City”
- Implemented a UI system using object pools to reduce memory allocation and garbage collection
- Developed a code generator for protocol deserialization to facilitate developing process
- Integrated Robotlegs as MVC framework, using Dependency Injection to achieve low coupling
- Optimized fps by splitting code execution to multiple frames, pinpointed memory leak problems
- Responsible for multiple key features like socket network, PvP siege warfare, raid bosses, fighting system, character animation, map layout, resource loading and management