

Zhao Liu

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EDUCATION

Carnegie Mellon University, School of Computer Science

Pittsburgh, PA

M.S. IN AUTOMATED SCIENCE (GPA:3.80/4.33)

Aug. 2019 - Exp. May. 2021

- Teaching Assistant: Algorithms and Advanced Data Structures.
- Core Courses: Machine Learning, Cloud Computing, Web Apps, Computer System, Algorithms, Automated Lab & research.

Jacobs University Bremen, Dept. of Computer Science & Electrical Engineering

Bremen, Germany

B.S. IN COMPUTER SCIENCE (GPA:3.56/4.00)

Aug. 2015 - May. 2018

- Teaching Assistant: Programming Lab in C; Programming Lab in Python; Electrical Engineering Lab.
- Core Courses: Linear Algebra, Probability, Computer Network, Computer Graphics, Functional Programming, Image Analysis.
- Awards: Merit-Based Scholarship.

WORK EXPERIENCE

Infervision, Infrastructure Team

Beijing, China

SOFTWARE ENGINEER

Aug 2018 - May 2019

- Designed & implemented a deploying and monitoring infrastructure for the company's AI solution, to provide easy configuration and better security. This reduced the time and cost of onsite maintenance by over 40% among over 350 hospitals.
- Built and optimized companies GPU clusters and GPU resources management systems.
- Integrated Single Sign-On authentication and authorization methods to the company's internal services.

Digital Transformation & Innovation Center, Carnegie Mellon University

Pittsburgh, PA

RESEARCH ASSISTANT

May. 2020 - Now

- Work as a 3rd party worker for PwC Advisory to provide their client solutions for analyzing company's network security risk.
- Performed ETL on network and security data and loaded the data into Elasticsearch database using logstash script.
- Develop visualizations to help detecting anomalies and potential risks according to user story

PROJECTS

High Performance Twitter Analytics Web Service

Pittsburgh, PA

FINAL PROJECT FOR CLOUD COMPUTING, CARNEGIE MELLON UNIVERSITY

Jan. 2020 - May. 2020

- Performed ETL on TB twitter dataset and loaded the data into MySQL and Hbase that deployed on AWS.
- Implemented queries for calculating the interaction scores between users and trending phrases by calculating the TF-IDF scores of topic words.
- Deployed a RESTful web services with auto-scaling policies to provide better availability and low response time when handling massive requests.

Scotty3D (<https://github.com/zhaoliu1996/Scotty3D>)

Pittsburgh, PA

FINAL PROJECT FOR COMPUTER GRAPHICS, CARNEGIE MELLON UNIVERSITY

Sep. 2017 - Dec. 2017

- Formulated a 3D interactive graphics software which enables interactive mesh editing with Half-Edges data structure and path tracing with the Monte Carlo method.

VR Data visualization

Bremen, Germany

THESIS PROJECT, JACOBS UNIVERSITY BREMEN

Jan. 2018 - May. 2018

- Designed and implemented a virtual reality software visualizing high dimensional data using C#, Unity and Google Glasses

SKILLS

Programming Languages

Proficient in C/Java/Python, Familiar with C++/Golang/Haskell/Asm-x86

Web Development

HTML/CSS/Javascript/Nginx/Django/Spring Boot

Distributed/Parallel

MapReduce/Spark **Cloud Computing:** AWS, Azure, GCP

Tools

Docker/Kubernetes/Terraform

Database

MySQL/MongoDB/Apache HBase/Elasticsearch