Zhao Liu

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EDUCATION

Carnegie Mellon University, Pittsburgh, PA, USA   Aug. 2019 - Present
M.S. student, Automated Science, SCS: computational biology

Carnegie Mellon University, Pittsburgh, PA, USA   Aug. 2017 - Dec. 2017
Exchange Student, School of Computer Science
CS Courses: 15-213 Intro to Computer Systems; 15-462 Computer Grahpics; 15-437 Web Application

Jacobs University Bremen, Germany   Aug. 2015 - Jun. 2018
B.S. Computer Science, GPA: 3.5/4.0
Major Courses: Linear Algebra; Probability Theory; Data Structures & Alogrithms; Databases; Software
Engineering; Image Processing; Formal Languages & Logic; Computability & Complexity

PRACTICAL EXPERIENCE

Software Engineer, Aipha Technology, Beijing   May. 2019 - Jul. 2019
• Optimized databases and quries, implemented concurrent web servers, and maintained server clusters,
reducing the cost and responding time of the web services by 50%
• Proposed and formulated a question-answer based Mandarin NLP system for financial questions using the
BERT model and fine-tuning with financial data

Software Engineering Intern, Infervision Inc., Beijing   Aug. 2018 - Apr. 2019
• Designed and implemented a highly configurable deploying and monitoring infrastructure (React, flask,
docker), reducing the time and cost of onsite maintainance by over 40% among over 350 hospitals.
• Built and optimized GPU clusters and GPU resources management systems (Kubernetes, nvidia-docker,
glusterfs), accelarating the speed of training multiple models at the same time by 2 to 4 times
• Intergrated authentication and authrorization methods to the internal services for security reasons

Teaching Assistant, Jacobs University Bremen
Programming in C I, II & Programming in Python I & Electrical Engineering lab   Fall 2016 - Spring 2018
Hold weekly tutorials and office hours; assisted students during the class; graded weekly homework and final
exams for four courses and labs over the three years.

RESEARCH EXPERIENCE

Research Assistant, KWARC MathHub, *Advisor: Prof. Michael Kohlhase*   Fall 2015 - Spring 2016
Porposed a portal design for viewing and changing the flexiformal mathematics documents. Implemented
an earlier version of interactive web application for mathhub.info

SELECTED COURSE PROJECTS

Scotty3D, 15-462 Computer Graphics, Carnegie Mellon University   Fall 2017
Formulated a 3D interactive graphics software which enables interactive mesh editing, realistic path tracing,
and dynamic animation.(C++)

Thesis Project, Data Visualization, Jacobs University Bremen   Spring 2018
Designed and implemented a VR(virtual reality) software visualizing high dimentional data (C#, Unity,
Google Glasses)

Malloc Lab, 15-213 Introduction to Computer Systems, Carnegie Mellon University   Fall 2017
Implemented a general purpose dynamic storage allocator for C programs. Received full credit (C)

RESEARCH INTERESTS

Computational Biology, Data Visualization, Machine Learning, Image Processing, Computer Graphics

HONORS AND AWARDS

Merit-Based Scholarship, Jacobs University Bremen   Fall 2015 - Spring 2018

ACTIVITIES

Jacobs University & Carnegie Mellon University Rowing Team   Fall 2015 - Spring 2018
A varsity rower of the competitive rowing teams of both universities

PROGRAMMING   C, C++, Python, Shell script, SQL, React.js, Latex, Matlab