Zhao **Liu**

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EDUCATION

Carnegie Mellon University   *Pittsburgh, PA*
M.S. IN AUTOMATED SCIENCE (GPA:3.80/4.00)   *Aug. 2019 - Exp. May. 2021*
- Courseworks: Machine Learning, Cloud Computing, Automated Lab & research, Algorithms, Cell Biology.

Jacobs University Bremen   *Bremen, Germany*
B.S. IN COMPUTER SCIENCE (GPA:3.56/4.00)   *Aug. 2015 - May. 2018*
- Courseworks: Linear Algebra, Probability, Computer System, Image Analysis, Computer Graphics, Functional Programming
- Awards: Merit-Based Scholarship

WORK EXPERIENCE

Infervision Inc.   *Beijing, China*
SOFTWARE ENGINEER   *Aug 2018 - May 2019*
- Designed and implemented a highly configurable deploying and monitoring infrastructure using React, flask, docker and Kubernetes, reducing the time and cost of onsite maintenance by over 40% among over 350 hospitals.
- Built and optimized GPU clusters and GPU resources management systems using Kubernetes, accelerating the speed of training multiple models at the same time by 2 to 4 times
- Integrated authentication and authorization methods to the internal services for security reasons

Jacobs University Bremen   *Bremen, Germany*
TEACHING ASSISTANT   *Aug. 2016 - May. 2018*
- Programming in C; Programming in Python; Electrical Engineering Lab

RESEARCH EXPERIENCE

Computational Biology Dept., Carnegie Mellon University (PI: Dr. Min Xu)   *Pittsburgh, PA*
RESEARCH ASSISTANT   *Sep. 2019 - Present*
- Working on an open source library for cryo-EM image analysis and integrating Spark to boost the speed of image analysis.

Jacobs University Bremen (PI: Dr. Michael Kohlhase)   *Bremen, Germany*
RESEARCH ASSISTANT   *Sep. 2015 - May. 2016*
- Proposed a portal design for viewing and changing the flexiformal mathematics documents.
- Implemented an earlier version of an interactive web application for mathhub.info.

PROJECTS

Scotty3D (https://github.com/zhaoliu1996/Scotty3D**)**   *Pittsburgh, PA*
FINAL PROJECT FOR COMPUTER GRAPHICS   *Sep. 2017 - Dec. 2017*
- Formulated a 3D interactive graphics software which enables interactive mesh editing, realistic path tracing, and dynamic animation using C++.

VR Data visualization   *Bremen, Germany*
THESIS PROJECT   *Jan. 2018 - May. 2018*
- Designed and implemented a virtual reality software visualizing high dimensional data using C#, Unity and Google Glasses

SKILLS

Programming & Web Dev	Python, C/C++, Go, Haskell, SQL, LaTeX, Django, HTML, React
Data Science & Bioinformatics	Spark, AWS, TensorFlow, skimage, Scipy, numpy, pandas, Matlab, Linux/Unix, Shell script