Yuzhu Mei

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EDUCATION

University of Southern California (USC) Aug. 2021 – June 2023, expected
Master of Science in Computer Science Los Angeles, CA
Nankai University (NKU) Sept. 2016 – June 2020
Bachelor of Science in Electronic Information Science and Technology Tianjin, China

- **Cumulative GPA:** 86.5/100
- **Honors:**
  - 2020 Outstanding Project Award of NKU Undergraduate Innovative Scientific Research Project (top 5%)
  - 2019 NKU Innovation Scholarship (top 2%)
  - 2018 NKU Student Service Scholarship (top 1%)

TECHNICAL SKILLS

- **Programming Languages**: Python, C/C++, HTML, CSS, MATLAB,Verilog
- **Software & Tools:** ISTIO, Kubernetes, Docker, Rancher, TensorFlow, Flask, Bootstrap, Nginx, Jmeter, ZigBee

INTERNSHIP EXPERIENCES

JJ World (Beijing) Network Technology Co., Ltd. Sept. 2020 – June 2021
Distributed Computing Intern | Data Engineering Group, Platform Support Center Beijing, China
Distributed Computing Platform | Chess Game AI Service | Back-end Programming

- Established a distributed machine learning and reinforcement learning platform to enhance modularity of current AI services.
- Configured ISTIO within the Kubernetes cluster to implement traffic flow and security management between multiple microservices; optimized the deployment and released process of multi-version services utilizing ISTIO traffic management.
- Optimized the native TensorFlow/1.x and TensorFlow/2.x by incorporating Advanced Vector Extensions 2 (AVX2) to, and deployed TensorFlow models by TensorFlow Serving, increasing computing speed of the machine learning platform by 30%.
- Implemented RESTful APIs for 10% of current AI services, modularized into microservices, and configured CI/CD pipeline.

Institute of Computing Technology, Chinese Academy of Sciences July 2019 – July 2020
Visiting Research Student | Advisor: Dr. Yongjun Xu Beijing, China
Edge Computing Research | Heterogeneous Processor Compatibility

- Published the paper *A Scalable Testbed for Task Offloading and Deployment of Heterogeneous Edge Computing* at the 18th IEEE International Conference on Ubiquitous Computing and Communications (IUCC 2019).
- Developed a scalable testbed for task offloading and deployment of heterogeneous edge computing.
- Utilized heterogeneous computational resources in different edge nodes with container orchestration techniques like Kubernetes to enable task offloading and deployment, such as image segmentation and optical character recognition.

RESEARCH PROJECTS

Distributed Task Deployment in Edge Computing Scenarios Dec. 2019 – June 2020
Senior Capstone | Advisor: Dr. Haiyuan Liu Tianjin, China
Edge Computing Application | Web Development | Machine Learning Application

- Analyzed the pros and cons of different virtualization and cluster management techniques in the edge computing scenario.
- Adopted Docker to package and distribute containerized applications; utilized K3S to build heterogeneous edge computing cluster and enable distributed deployment, management, and maintenance of tasks in cluster to maximize computing efficiency.
- Conducted several experiments, like providing web services and training deep learning models, to verify cluster's functionalities.

Implementation of the Interactive Network between the Blind Stick and Traffic Light Mar. 2018 – June 2020
Research Team Leader | Advisor: Dr. Guiling Sun Tianjin, China
Internet of Things | Hardware Programming | Optimization Algorithm

- Devised an intelligent blind stick with obstacle detection module, voice and vibration warning module, alarm module and etc.
- Built an interactive network using ZigBee technology to allow the blind stick to recognize and control traffic lights, which accuracy reached within three meters.