Wenhan Shi

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Education

- **University of Illinois at Urbana-Champaign (UIUC)** — Urbana, IL
  Master in Computer Science; GPA: Pending — *Aug. 2018 - Dec. 2019*
- **Beijing University of Posts and Telecommunications (BUPT)** — Beijing, China
  B.Eng. in Computer Science and Technology; GPA: 90.47/100; Rank: 7/311 — *Sept. 2014 - June 2018*

Internship Experience

- **VMware** — Beijing, China
  MTS Intern - Cloud Platform Business Unit (CPBU) — *Apr. 2018 - July 2018*
  - **vAI**
  - Worked on the research and implementation of parallel virtualization on ASIC, especially AI Accelerating Card. Collaborated with USTC, Cambricon and Sophon.
  - Developed a PoC of Intermediate Representation (IR) front-end with ONNX ops based on ATen, the back-end framework of PyTorch, to pass parameters of tensors and ops to virtual device and IR back-end.
- **Momenta** — Beijing, China
  Research and Development Intern — *Oct. 2017 - Apr. 2018*
  - **Dataflow Controlling System**
  - Managed PB-level image dataflow among disks, MongoDB, AWS-S3 and Ceph clusters.
  - Designed and developed tools, features and back-end APIs with Django, e.g. more effective job queue and buffer for the labeling system, to double the efficiency of submitting, scheduling and labeling processes.
  - Developed, deployed and maintained the test environment with Kubernetes.
  - **Disk Monitor and Preprocessor**
  - Applied and improved storage service for data platform, from NFS to CephFS and eventually Ceph-rgw, to raise accessibility for researchers and save 20hrs/w on data management.
  - Built image and video processing tools with OpenCV, e.g. undistortion and frame extraction, to effectively preprocess raw data on disks and meet the company's demand for preprocessed data.
  - **AWS-based 4G Data Collector**
  - Designed and coordinated meta format with Camera Device Team and Data Operation Team to receive image and video data from 4G and AWS platform.
  - Implemented a PoC on AWS-EC2 to finish the first-round test on 4G dataflow.
- **LEMS, Brown University** — Providence, RI
  Research Intern, mentored by Prof. Benjamin Kimia — *July 2017 - Oct. 2017*
  - **LEMSVXL: A C++ computer vision library forked from VXL**
  - Redesigned and built functional packages of 2D Intrinsic and Extrinsic Shock Graph computation pipelines for LEMSVXL, including refactored APIs and visualization tools.
  - Designed and implemented a new format to save and load Shock structures as text file.
  - Built tests of the packages on BSDS300 and Google Quick Draw datasets.

Programming Skills

- **Languages**: Python, C/C++, SQL
- **Tools and Frameworks**: Django, MongoDB, MySQL, Qt, Git, Docker, AWS, PyTorch, Sentry, LaTeX