Zhoujie(Jason) Ding

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EDUCATION

University of California, Berkeley **Expected Graduation: 05/2023**
B.A. in Computer Science and Applied Mathematics **GPA: 3.950/4.000**

Relevant Coursework: CS189: Introduction to Machine Learning (**A+**); **EECS127:** Optimization Models in Engineering (A+);
CS194-26: Intro to Computer Vision and Computational Photography (**A**); **CS61C**: Machine Structures (**A+**);
CS162: Operating Systems and Systems Programming; **Math113**: Introduction to Abstract Algebra (**A+**);

SKILLS

Programming Languages: **Python**, Java, SQL**,** C**,** RISC-V
Tools: Visual Studio Code, IntelliJ, Postman, AWS

WORK/RESEARCH EXPERIENCE

Research Assistant **03/2021 – Present**
RISELab, UC Berkeley

- Researched on Kernel-as-a-Service project, which lets user define GPU-only 'functions' that they can ask the cloud to execute.
- Implemented 3 different key-value stores with Redis, Anna, and posix shared memory for our system;
- Devised benchmark with 5 metrics and evaluated kv read-and-write practicality.
- Adapted 3 GEMM cuda kernels and modified our system handler to invoke those kernels.

Software Developer Intern **06/2021 – 07/2021**
Hundsun Technologies Inc., Hangzhou, China

- Devised Word and pdf content information-extraction. Tested on over 100 fund contract documents.
- Resolved ~2000 conflict data (same sample with different labels) by Python program for NLP model training.
- Deployed a Python API with tornado framework for document info-extraction; Tested HTTP request with Postman.

PROJECTS

Facial Keypoint Detection **10/2021 – 12/2021**
Class Competition Project

- Trained on iBug dataset of 6666 images of varying image sizes, and each has 68 annotated facial keypoints.
- Wrote dataloader, adapted ResNet and FCN_ResNet, and utilized hyperparameter tuning in PyTorch.
- Reached top 10 in class Kaggle competition among over 150 students.

Pintos **01/2021 – 05/2021**
Class Group Project

- Improved Pintos in its file system, thread scheduler, and support for user programs.
- Worked in a group of size 4; Gained experience in team communications and code-design document writing.

Neural Network **03/2021 – 05/2021**
Class Individual Project

- Designed two fundamental types of neural network models, all in plain NumPy: a feed-forward fully-connected network, and a convolutional neural network.
- Built custom convolutional neural network by PyTorch and predicted on CIFAR dataset (75% accuracy).

ORGANIZATIONS

Computer Science Mentors Association (CSM) **01/2021 – 12/2021**
CS61C Mentor

- Instruct 12 small group teaching sections, teaching weekly new topics of 61C.
- Assist ~50 students with lab coursework and hold lab understanding checkoff sessions.