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: 3.96/4.00**

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**: Abstract Algebra (**A+**); **Math185**: Complex Analysis (**A+**);

AWARDS

Phi Beta Kappa (top 10% L&S students); **Upsilon Pi Epsilon** (top third declared CS students); **Dean's List**

SKILLS

Python (Pytorch, OpenCV), Java, SQL**,** C**,** RISC-V, **AWS**, Docker

WORK/RESEARCH EXPERIENCE

Undergraduate Researcher **05/2021 – Present**
SkyLab, UC Berkeley
- Researched on Skyplane project, a tool for blazingly fast bulk data transfers between any cloud object store.
- Benchmarked data transfer speed and cost against AWS DataSync: up to 100x faster and 85% lower cost.
- Implemented user usage metrics collection to improve core APIs and prioritize bug fixes.

Undergraduate Research Assistant **02/2021 – Present**
Berkeley Security Group, UC Berkeley
- Researched on deep learning for vulnerable program detection.
- Curated ~10,000 hand labeled commits from 100 top GitHub C/C++ repos; used them for model pretraining.
- Benchmarked vulnerability detection on code changes, commits, and issues among 3 SOTA models.
- Now focus on using Snorkel for hand labeling and fine-tuning language models on classifying issue messages.

Undergraduate Research Assistant **03/2021 – 12/2021**
RISELab, UC Berkeley
- Researched on Kernel-as-a-Service project, which manages shareable GPU memory and schedules user kernels across this pool of available GPUs.
- Implemented KaaS by Ray, and integrated Python API-based interfaces for users to easily deploy it.
- Benchmarked on online and offline workloads in a multi-client environment against baseline Ray actors.
- Paper under submission to ASPLOS 2023.

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

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.

ORGANIZATIONS

Computer Science Mentors Association (CSM); **Berkeley Chinese Students and Scholars Association (BCSSA)**