Shangdian (King) Han

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🎯 Personal Statement

- Full-stack research engineer.
- Specialized in software engineering, with 5+ years of experience in successfully collaborating with ML researchers to turn research into products.
- At Microsoft Research, I prototyped the new Office AI for Excel.

🎓 Education

University of California, Berkeley Berkeley, CA

B.A. Honors Computer Science & Mathematics May 2024

- Tech GPA: 4.0 | GPA: 3.92
- **Coursework**: AI, ML, Probability, LinAlg, Algorithms, Optimization, Compilers, Computer Security

🔭 Experience

Research Engineer Jan 2023 - Dec 2023

Sky Computing Lab

- Spearheaded the implementation of a "live" benchmark for code LLMs (Large Language Models), ensuring real-time performance evaluation while preventing data contamination.
- Evaluated LLMs on a wide range of tasks, including code generation, repair, execution, optimization, and test generation, revealing possible data contamination in new models.

Research Engineer Jan 2023 - Dec 2023

UC Berkeley Electrical Engineering & Computer Sciences

- Led a team of 5 researchers to develop an ML service for circuit design on GCP and a reinforcement-learning library for circuit optimization using OpenAI Gym and Ray.
- Enabled ML researchers to design optimal circuits without any prior knowledge of circuit design, reducing the design time from 1 week to 1 day.

Research Engineer May 2022 - Aug 2022

Tsinghua University

- Built a service for data processing and analysis using Django, enabling data scientists on the team to perform 10+ data pipelines, including association rule learning, dynamic time warping, etc.
- Trained, validated, and tested an object detection model for NASA satellite images using PyTorch CNNs, validating the feasibility of a new product.

Research Fellow Sep 2021 – May 2022

Microsoft Research

- Prototyped the new Office AI for Excel using TypeScript, C#, and TensorFlow, enabling users to perform 10+ AI tasks. Shipped to the Excel product team.
- Improved a deployed ML classification model (LSTM + CRF) using TensorFlow, increasing its F1 score from 72 to 77.

🌱 Skills

- Python, PyTorch, JS/TS, Rect/Next.js, Svelte, Rust, C/C++, Go, Java/C#, CUDA, GCP, SQL, NoSQL, Agile