Jennifer Lai

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EXPERIENCE

✦ Meta

❖ Senior Software Engineer, ResourceBroker Team — Jun 2021 – Present

- Key engineer in 2+ year effort across 5+ teams, driving low-level design and implementing distributed, highly available unified control plane that orchestrates host configuration changes and capacity allocations across 1M+ machines daily for Meta's internal cluster management system.
- Lead engineer in designing and implementing performance optimizations and load test framework, used for A/B testing on the efficiency gains from the changes, to address scalability bottlenecks resulting in 65% latency improvement and 4x increase in throughput for Meta's cluster management driving engine.
- Led alignment and design across cross-functional teams to provide recovery mechanisms to prevent data loss on Meta's stateful storage services, unlocking service onboarding onto shared pools to increase efficient resource allocation and decrease cost of maintenance.
- Drove design, implementation, and execution across multiple teams to automatically unblock rack-moves on unhealthy machines to accelerate hardware refresh, resulting in company-wide infra cost reduction of ~$300M per year and saving 130 engineering hours of operational toil per half.
- **Technologies:** C++, Python, SQL

❖ Software Engineering Intern, Analytics Platform Team — Sep 2020 – Dec 2020

- Designed and implemented hypercube structure to unify data across different platforms.
- Created dashboard to visualize and track data exposed per query.
- **Technologies:** C++, Python, SQL

✦ Google

❖ Software Engineering Intern, Spanner — Jun 2020 – Sep 2020

- Reduced CPU cost of a class of Spanner Paxos writes by ~15-20% by batching RPCs together.
- Enhanced Spanner LSM compaction verification by examining all versions of data.
- **Technologies:** C++

❖ Software Engineering Intern, Funding Choices Team — Jun 2019 - Sep 2019

- Implemented and tested full-stack feature that provides bulk management tools for a Google Ads publisher product.
- **Technologies:** Java, JavaScript, Closure/CSS, Spanner

EDUCATION

University of California, Santa Barbara — Sep 2017 - Mar 2021

B.S. Computer Science, GPA: 3.94

- UCSB Regents & Chancellor's Scholars Association & College of Engineering Honors

SKILLS

- ✦ **Languages**: C++, Python, SQL, Javascript Nodes.JS+React
- ✦ **Technologies:** Git, Docker, Kubernetes, AWS
- ✦ **Methodologies:** Scalable System Design, Test-Driven Development, Waterfall Project Management

LEADERSHIP

✦ SB Hacks Organizing Team, Co-Director & Developer — Feb 2018 – Mar 2020

- Raised $45,000+ in sponsorships and led 8-person team to organize 350-person UCSB annual hackathon.
- Created landing page, hacker dashboard, and additional user features for SB Hacks website.
- Created React app to optimize application review process and built additional internal team tools.
- **Technologies:** AWS, Cloudflare, JavaScript, Node.js, PostgreSQL, React, Redux, SASS, Sendgrid, Webpack