# Hantao (Will) Wang

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## Education

**UC Berkeley**
M.S. in Computer Science — August 2019 - May 2020
B.S. in Electrical Engineering and Computer Science (Tech GPA: 3.98) — August 2016 - May 2019
**Selected Coursework:** Graduate Computer Systems, Graduate Computer Networks, Operating Systems, Internet Architecture and Protocols, Computer Security, Machine Learning, Algorithms, Computer Architecture, Probability and Random Processes

**Languages:** Go, Python, Java, C, JavaScript, SQL, HTML/CSS, Latex
**Skills/Interests:** Distributed Systems, Infrastructure, Networking, Kubernetes, Containers, Backend Development

## Experience

**Google**
Software Engineering Intern — May 2019 - August 2019
- I was a part of the GKE/Kubernetes Storage Lifecycle team. My mostly open source project focused on improving the performance of the storage stack to support large multi-thousand node clusters.
- I worked on parallelizing and ensuring idempotency in GCP Container Storage Interface Persistent Disk Driver operations, scale test both in-tree and CSI storage plugins, and mitigating known scaling bottlenecks.

**Network Systems Lab**
Researcher — April 2017 - Present
- My research is focused on practical solutions to real world problems in distributed systems. I've been doing research since I was a freshman in undergrad, and I have worked on all aspects of research as you would expect from a graduate student. I am advised by Professor Scott Shenker.
  - *Data Lineage*: Currently working on an system that implements data lineage, simple to request lineage, for the enforcement of operator defined data based privacy and security policies in distributed systems.
  - *Verified Event Handlers*: Architectured and implemented Scotty, a client side event based Kubernetes controller in Go to check and enforce complex user defined placement invariants on a Kubernetes cluster along with master side components.
  - *Throttlebot*: Large scale resource allocation optimization in distributed systems through the elimination of resource over and under provisioning. Created Throttlebot, a black box tool that tunes resource limits in a distributed application to optimized for cost and performance by systematically throttling container resources.
- Published two popular Medium articles on microservice architecture and container technology.

**Teaching (TA/uGSI)**
CS 162 Operating Systems: Spring 2019, Fall 2019 (Head TA)
CS 168 Internet Architecture: Fall 2018
- I was responsible for hiring the other TAs and course staff. Managed a team of 15 staff members, handled course logistics, created course content, etc.
- Created project 2 (TCP/IP) in CS 168 and currently creating homework 4 (distributed systems) in CS 162.
- Taught discussion sections, held office hours, and created material like discussions, autograders, and content.

**Berkeleytime**
Product Manager, Backend Engineering Lead — April 2017 - May 2019
- Berkeleytime is UC Berkeleys most popular course catalog, with over 26,000 unique monthly users.
- I led and developed on major initiatives to redesign a new frontend in React and move our infrastructure from Heroku to Kubernetes. I also worked on Django backend projects like the scheduler, user authentication, and application performance.

**Kelda**
Software Engineering Intern — May 2018 - August 2018
- Worked with a small team of researchers from NetSys on making Kubernetes more accessible by creating a local development tool that eases the complex CI/CD and incident response pipelines.
- Build applications using GKE, AWS, and Minikube along with monitoring, logging, and CI/CD tools such as Jenkins, Spinnaker, Gitlab, Prometheus, Elasticsearch, etc.