Hantao (Will) Wang

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Education

UC Berkeley
B.S. in Electrical Engineering and Computer Science — August 2016 - May 2020
Tech GPA: 3.98, Cum GPA: 3.85
Eta Kappa Nu (HKN), Deans Honor List (Spring 17, Fall 17, Spring 18)

Selected Coursework: Probability and Random Processes, Operating Systems, Internet Architecture and Protocols, Computer Security, Algorithms and Intractable Problems, Computer Architecture, Discrete Math, Data Structures, Data Science, Information Devices and Systems

```
languages := []api.Language{Go, Python, Java, JavaScript, SQL, C, HTML, CSS, Latex}
```

Experience

Network Systems Lab
Research Assistant — April 2017 - Present

- Verified Triggers
  - Currently researching how distributed systems respond to developer defined event driven triggers, looking at feasibility, convergence, performance issues.
  - 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.
  - Built a custom release of Kubernetes off of release 1.10 to support the master side features of Scotty.
- Throttlebot / AutoTune
  - Previously researched the automatic identification of resource utilization bottlenecks in a distributed system by systematically throttling microservice container resources.
  - Implemented this as Throttlebot, a tool that automates this process and uses it to optimize resource allocation, finding and eliminating resource over-provisioning and under-provisioning.
- Source code and/or paper draft available by email.

Kelda
Software Engineering Intern — May 2018 - August 2018

- Working on making Kubernetes more accessible by creating a local development tool that eases the complex CI/CD and incident response pipelines.
- Set up applications on GKE, AWS, and Minikube along with monitoring, logging, and CI/CD tools such as Jenkins, Spinnaker, Gitlab, Prometheus, Elasticsearch, etc.
- Identified pain points working with the current major tools in the environment and analyzed the technical implementations and limitations of these tools.

CS 168: Internet Architecture and Protocols
Undergraduate Student Instructor — August 2018 - Present

- Teaching a discussion section every week and working on developing course material.
- Currently working on writing new class projects!

Berkeleytime
Backend Engineering Lead — July 2018 - Present
Backend Developer — April 2017 - July 2018

- Berkeleytime is Berkeley's most popular course catalog website, with over 26,000 unique monthly users.
- Implemented user authentication, accounts, and both frontend and backend aspects of the scheduler.
- Leading migration from Heroku to a microservices on Kubernetes and setting up monitoring and logging.
- Redesigning the system architecture and creating a new service to handle data lookup, caching, and search.

Computer Science Mentors
Junior Mentor — January 2018 - May 2018

- Taught CS 61B: Data Structures to a small section of 5 students once a week.
- Created a worksheet on Weighted Quick Union w/ Path Compression and its amortization proof.