

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, Computer Architecture, Convex Optimization

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

EXPERIENCE

Network Systems Lab

Research Assistant

April 2017 - Present

- Verified Event Handlers
 - Currently researching how distributed systems respond to developer defined event driven triggers, looking at feasibility, convergence, performance issues.
 - Architected 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.
 - Currently leading a team of undergrads on the continued development of Scotty.
 - Built a custom release of Kubernetes off of release 1.10 to support the master side features of Scotty.
- Throttlebot
 - Previously researched the automatic identification of resource under and over provisioning in distributed systems by systematically throttling container resources allocation.
 - Created Throttlebot, a black box tool that jointly tunes resource limits in a distributed application to optimized for cost and performance.
 - Designed unique distributed applications using a variety of common microservices for experiments to show not only Throttlebot's effectiveness but also the difficulty of manually tuning based off resource utilization.
 - Preparing paper for submission to NSDI.

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.
- Previously worked with the team on Quilt, a novel container orchestrator with a JavaScript based deployment specifications.

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 worked on 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 new services to handle data lookup, caching, and search.

TEACHING

CS 168: Internet Architecture and Protocols (uGSI)

August 2018 - Present

- Currently working on writing a new class project on transport.

Computer Science Mentors (Junior Mentor)

January 2018 - May 2018

- Created course material on Weighted Quick Union w/ Path Compression and its amortization proof.