

# Hantao Wang

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## EDUCATION

### UC BERKELEY

B.S. IN ELECTRICAL ENGINEERING  
AND COMPUTER SCIENCE

Expected Fall 2019 | Berkeley, CA

Cum. GPA: 3.78 / 4.0

Major GPA: 4.0 / 4.0

### CSU DOMINGUEZ HILLS

HIGH SCHOOL CONCURRENT

ENROLLMENT, CUM GPA: 3.98

2013 - 2016 | Carson, CA

## COURSEWORK

### CURRENT

- Efficient Algorithms & Intractable Problems
- Computer Architecture
- Internet Architecture & Protocols

### COMPLETED

- Discrete Mathematics & Probability Theory
- Data Structures
- Structure of Computer Programs
- Web Design

## SKILLS

### LANGUAGES

Expert

Java • Python • JavaScript

HTML/CSS • C •  $\LaTeX$

Proficient

Assembly (RISC-V MIPS) • Ruby •

Scheme • SQL • Go

### SOFTWARE, FRAMEWORKS

Django • Node.JS • Bootstrap

JQuery • Redis • etcd • Docker

AWS • Nginx • Quilt

### OTHER

AutoCAD • CATIA • Autodesk Inventor

Solidwork • Final Cut Pro

## LINKS

[github.com/hantaowang](https://github.com/hantaowang)

[linkedin.com/in/hwang97](https://www.linkedin.com/in/hwang97)

## INTERESTS

Backend Development • Network  
Architecture • Distributed Systems  
Machine Learning • Artificial Intelligence  
Algorithms • Data Structures

## EXPERIENCE

### NETWORK SYSTEMS LAB | RESEARCH ASSISTANT

April 2017 – Present | Berkeley, CA

- Researched the identification of resource utilization bottlenecks in a distributed system by systematically throttling container resources. Worked on ThrottleBot, a tool that completely automates this process.
- Co-authored a research paper on the theory, effectiveness, and applications of ThrottleBot (currently under submission @ HotNets 2017).
- Designed, deployed, and tested popular distributed applications such as Spark Streaming, MEAN stack, and ELK stack in addition to creating custom applications using microservices such as Redis, etcd, Spark, Nginx, Django, etc.
- Created cmetrics, a distributed resource utilization application that monitors, logs, and plots cpu, network, memory, etc used by each container in a system.

### BERKELEYTIME | BACKEND DEVELOPER

September 2017 – Present | Berkeley, CA

- Maintaining and updating Django backend and Postgres database.
- Working on long term project on revamping entire backend in addition to new site features currently under wraps.

### GULFSTREAM AEROSPACE | APPRENTICESHIP

August 2015 – June 2016 | Long Beach, CA

- Worked with the mechanical engineering teams on interior design drawings of G550 and G650 aircraft using AutoCAD and CATIA.
- Created & updated computer aided drawings and assemblies. Reviewed & corrected other engineer's drawings and specifications.
- Worked 10-15 hours per week during high school and earned Mach 3 Award for excellence.

## PROJECTS

### FOOD FINDER

Web app that learns from user preference to make local restaurant suggestions. Users interact with a frontend which communicates using AJAX with a RESTful API backend created with Django and Nginx. Uses Redis to store session information and etcd to store user authentication and preference information. Deployed on AWS using Quilt.

### BEARMAPS

A data structures and algorithms focused Google Maps-esque web app that allows users to interact with a map of Berkeley. Implemented features such as zooming, routing, autocomplete, location searching, and map rastering using concepts such as quadtrees, tries, hashtables, and the A\* search algorithm.

### DATABASE

SQL-like relational database management system (RDBMS) and corresponding Domain Specific Language (DSL) in Java with commands such as load, store, select, with, as, from, etc. Able to perform Cartesian joins of two or more tables in accordance to filter specifications defined by user input.

### METMAN

A Node.JS server built for a research class that explored flexible spacesuit designs intended for human exploration on Mars. Runs METMAN, a complex simulation of the Martian environment for internal testing purposes.