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 Math & 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
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 @ Eurosys 2018).
- 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 of 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.