

# QUANWEI HAO

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🌐 <https://hao-q-developer.netlify.com/>

📍 Boston, MA

## PROJECTS

### Smart Brain

📅 2019 - 2020 📍 Boston, MA

Face Recognition Web App. (Full-Stack)

**Skills involved:** Javascript, React, HTML5/CSS3, Tachyons, Node.js, Express, Knex/PostgreSQL, Clarifai API.

- Create reusable components that are scalable and easily maintained of front end website using **React**.
- Used **Tachyons** to set styles and connected them together in App container.
- Fatched **Clarifai API** to recognize faces on given image.
- Build backend server using express with 10 request controllers and connected to **PostgreSQL** database.

### PostZone

📅 09/2019 - 12/2019 📍 Boston, MA

A twitter-like social media, users can post posts, follow other users, search posts and chat with others. (Full-Stack)

**Skills involved:** OOD, Javascript, Express, Session, Axios, Socket, Mongoose, Dompurify, HTML/CSS, JWT, CORS.

- Based on **OOD**, create models and controllers for each domain object.
- Used **session** to give users authentication to operate their posts.
- Used **axios** to post HTTP requests from front end to server, and used **socket.io** to establish chat between users.
- Created **API** using **JWT** and **CORS**.

## EXPERIENCE

### Software Engineer Intern

**Atantares Corp.**

📅 01/2019 - 08/2019 📍 Cambridge, MA

Atantares is intended to build low cost, high precision, and miniaturized clinical diagnostic equipments.

**Skills involved:** MATLAB, PyQt, multiprocessing, serial, Arduino.

- Was responsible for the phase II R&D of a modular coagulation detection system, made it 10 times smaller and got 0.1 seconds precision, help company financing \$100k.
- Designed user interface using PyQt.
- Got crystal vibration frequency from Arduino using **serial** and updated data asynchronously using **multiprocessing**.

### Robotic Engineer

**AI Lab of Tsinghua University**

📅 07/2016 - 12/2016 📍 Beijing, China

AI Lab is intended to build Automatic Car.

**Skills involved:** PID control, ROS, SLAM.

- Helped lab to get ¥1M financing. Dramatically decreased errors of running speed down to  $\pm 1\text{cm}$  and turning angle down to  $\pm 1$  degree.
- Used **ROS** to build system, and **SLAM** to do navigation.

## SKILLS

### Programming languages

Java

JavaScript

Python

C++

### Platforms & Frameworks

React

Node

Mongo

Git

ROS

Express

PostgreSQL

MySQL

## ACHIEVEMENTS



### Participant in "Internet +" University Student Innovation and Entrepreneurship Competition

Our project was 'Remote control insertion surgery robotic platform'. Won the first prize of this competition.



### Participant in China Undergraduate Mathematical Contest in Modeling

The prediction accuracy of our model was 99%. Won the first prize.

## EDUCATION

### Master in Electrical and Computer Engineering

**Northeastern University**

📅 2018 - Ongoing

📍 Boston, MA

- Research Assistant in Cognitive Systems Lab.
- Teaching Assistant of machine learning.

GPA

3.9 / 4.0

### Bachelor of Engineering

**Beijing University of Posts and Telecommunication**

📅 2013 - 2017 📍 Beijing, China