David He

CONTACT DETAILS **Phone:** (657)252-4813
Email: *dyhe@ucsd.edu*

EDUCATION **College Name**   *University of California San Diego*
B.S, Electrical Engineering, Expected: 06/2021

- PID: A15512829
- *Depth:* Machine Learning;
- GPA: 3.957; Major GPA: 4.0;

SKILLS
- *Programming:* OOP C++, CUDA, C, Python, Java, ARM assembly, LaTex
- *Web development:* Docker, HTML, CSS, JavaScript, mySql relational database, Digital Ocean
- *Digital Design:* FPGA design/SystemVerilog design with Quartus Prime
- *Mechanical Design:* Auto CAD Solidworks
- *Circuit Design:* Autodesk eagle PCB schematics, ORCAD, PSpice analysis, transmission line
- *Languages:* English, Mandarin
- *Other Skills:* Project Management, Detailed report making, Video editing with Animotica

ACCOMPLISHMENTS
- Accepted as a B.S./M.S. student at UCSD with major of Intelligent Systems, Robotics and Control (Academic, 04/2020)
- Accepted as a transfer student at UCLA with major of Electrical Engineering (Academic, 04/2020)
- HKN member (Academic, 01/2020)
- Revelle Provost Honors (Academic, 06/2019, 09/2020)
- Revelle Freshman Honor Students (Academic, 03/2019)
- ECE 5 Final Cup (Project, 09/2018)
  - My team's project for the class was a line following arduino robot. We won the final competition. youtube competition video 1, youtube competition video 2, youtube competition video 3
- IDEA Scholar at UCSD Jacobs School of Engineering (Academic, 07/2018)

PROJECTS AND EXTRACURRICULAR ACTIVITIES
- Boolean network research project in submission process (12/2020) Software application on GitHub
- Implemented least squares hand-written digit classifier (11/2020)
- Implemented reinforcement learning algorithm: Q learning with CUDA (09/2020) youtube video
- Implemented functional SQL relational database in C++ (06/2020)
- My database in docker tutorial video (03/2020) My youtube tutorial
- Implemented minimax algorithm with alpha-beta pruning in C++ (03/2020)
- Jetson Jetbot Autonomous Vehicle Project (02/2020) youtube video
- My C++ tutorial video about Memory Management (02/2020) My youtube tutorial
- Webroot Hack (01/2019)
  - My teammates and I worked to design game techniques using C programming.
- H.A.R.D. Hack (01/2019) Event website
  - My teammates and I worked on a project that can bring benefits to the society – an ultrasonic sensor counter that can monitor the crowdedness in our library
- SD Hack (10/2019) Event website
  - My teammates and I worked on a project that can automatically take care of various kinds of plants while helping save on utilities.

WORK EXPERIENCE
- HDH Goody's Dinning Hall Worker (September 2018 – January 2019)
- Splash Water Park Assistance (June 2018 - July 2018)
  - In charge of maintaining the water park function normally
- Nakamura-Beeman, INC. Worker (August 2015 – October 2015)
  - Cutting wood to specification, sanding, and putting edges on boards