

Sihao Chen

sihao@berkeley.edu ◇ sihao.dev ◇ Berkeley, CA, 94709

EDUCATION

University of California, Berkeley

Berkeley, CA

M.Eng. in Electrical Engineering and Computer Science

Aug. 2020-Present

Coursework: Efficient Algorithms and Intractable Problems, Deep Learning, Advanced Robotics, Computer Security, Principles and Techniques of Data Science, Applications of Parallel Computers

Northeastern University

Shenyang, Liaoning, China

B.Eng. in Software Engineering, GPA: 3.95/4

Sep. 2016-June 2020

National Scholarship, First Prize in Contemporary Undergraduate Mathematical Contest in Modeling
Coursework: Software Engineering, Data Structures and Algorithms, Computer Networks, Introduction to Database, Principles of Computer Organization, Object-Oriented Programming and Design

PROFESSIONAL EXPERIENCE

Full-stack Software Engineer, University of California, Berkeley, Berkeley, CA

Sep. 2020-

Developing a platform that analyzes student survey data and gives report using React.js and Firebase.
Designed a NoSQL database schema for storing student data using Cloud Firestore.

Research & Development Intern, Microsoft Research, Beijing, China

Jan. 2020-June 2020

Designed and implemented a document match plan generation algorithm for the Bing search engine based on deep reinforcement learning, improving the match plan's performance by 57.03%.

Project Intern, University of California, Berkeley, Berkeley, CA

Feb. 2019-Mar. 2019

Worked on a joint project with Uber on mobility modeling supervised by Professor Alexandre Bayen.
Tested a transportation optimization system, visualized and analyzed data on transportation statistics.

Software Engineering Intern, Zhuomo Group, Beijing, China

Aug. 2018-Aug. 2018

Implemented a RESTful API for smartwatch using Java, Docker, Jenkins, Nginx, and Nexus3.

PROJECTS

Assistive Technology for Navigation, Selection, Pointing, and Clicking in a Mouse-free Environment

Sep. 2020-

Capstone project supervised by Professor Brian A. Barsky, UC Berkeley, Berkeley, CA

Creating a program that controls cursors using real time video input with hand gesture recognition.

Interactive Prediction using Imitation Learning

May 2019-Sep. 2019

Supervised by Professor Masayoshi Tomizuka, MSC Lab, UC Berkeley, Berkeley, CA

Implemented an integrated interactive traffic visualization tool based on Uber AVS.

Built an imitation learning model for trajectory prediction using PyTorch and OpenCV.

Multimodal Emotion Recognition

Mar. 2019-May 2019

Supervised by Professor Jungseock Joo, Red Hen Lab, Los Angeles, CA

Implemented a deep learning model for human pose estimation using TensorFlow.

Designed an integrated system for multimodal emotion recognition. Proposal approved by GSoC 2019.

Human-Machine Synchronization

Nov. 2017-Jan. 2019

Supervised by Professor Tao Ren, Northeastern University, Shenyang, Liaoning, China

Debugged and tested an interactive humanoid robot that imitates human body motion based on Android and Microsoft Kinect. Project earned second prize in Chinese Artificial Intelligence Design Contest.

SKILLS

Programming Python, Java/J2EE, JavaScript (Node.js), MATLAB, C/C++, SQL (MySQL/Oracle), Go, HTML, CSS, LaTeX, Linux/UNIX, AWS, Google Cloud Platform, Git, NoSQL, ROS

Language Excellent Chinese and English communication skills, both written and verbal