Sihao Chen

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EDUCATION

University of California, Berkeley Berkeley, CA
M.Eng. in Electrical Engineering and Computer Science *Aug. 2020-Present*
Coursework: Efficient Algorithms and Intractable Problems, Machine Learning with TensorFlow, Advanced Robotics, Computer Security, Principles and Techniques of Data Science

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 applies machine learning to student teaming using React.js and Firebase.

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