CHENG REN

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education

- **Ph.D. student in Social Welfare**
  Designated Emphasis in **Computational and Data Science and Engineering**
- University of California at Berkeley, Berkeley, CA 08/2018-present
  Departmental fellowship award
  GPA 3.94/4.0
  - **Applied Data Science Certificate** School of Information
  - Data Scientist with Python Track Certificate (DataCamp, 04/2019)
  - Summer Institutes in **Computational Social Science** (Bio Link)

- **Master of Science in Social Administration**
- Case Western Reserve University, Cleveland, OH 09/2015 - 05/2017
  GPA 3.53/4.0

- **Bachelor of Arts in Communication**
- Shanxi University, Shanxi, China 09/2011 - 06/2015
  GPA 3.5/4.0
  Outstanding Graduates, Second/Third Prize and Excellent Student Scholarship Award

experience

- **Berkeley Interdisciplinary Migration Initiative,** Berkeley, CA
  Data Analyst 03/2020 – present (Bio Link)
  - Created an interactive map to explore spatial inequality of immigrant health and
    legal services in the bay area and will expand the map to the central valley area
    in CA, which will cover around 1000 clinics information(map website)
  - Created an interactive map for COVID-19, health resources. (map website)
  - Applied **Natural Language Processing** to build a recommendation system to detect
    immigration institutes.

- **D(Data)-Lab,** Berkeley, CA
  Data Science Consultant 10/2019 – present
  - Provided consulting service for the students with **R, Python, geographic information
    system** (GIS) and **machine learning** questions at University of California, Berkeley
  - Collaborated with students in one **Kaggle** competition and increase the prediction rate
    from 83% to **90%** via an **NLP model**. Finally, we got **No.4** among the total 50 teams
  - Helped students build their research design and make their research project move forward

- **Guizhou Berkeley Big Data Innovation Research Center,** Berkeley, CA
  Research Associate/Data Scientist   09/2017 – 07/2018
  - Conducted literature reviews about left-behind children and aging service in China for
    Professor Susan Stone and Professor Andrew Scharlach; helped prepare reports
  - Cleaned and analyzed data from four departments in Guiyang via R and Python as a **coder
    supervisor**, wrangling over **1 million individuals**' information **linked through 200+
    tables**

- Assisted Guiyang city government **establish rules** for collecting data and building datasets
- Provided consultation on how to apply data science to social goods and related policies

- **Center on Urban Poverty and Community Development,** Cleveland, OH
  Research Assistant   08/2016 –08/2017 (Part time)
- Helped maintain the Northeast Ohio Community and Neighborhood Data for Organizing dataset (NEO CANDO) and Neighborhood Stabilization Team Web Application (NST) and **provide data training for students and community residents**
- **Designed surveys** to gather information and feedback from users for Community Profile Website and prepare GIS (online and offline) maps for communities and other **geographic analyses** for the organizations
- Used SAS, R, Python and ArcGIS to **analyze large-scale data for research papers** and generate data stories or reports, such as Lead Exposure Survey

- **Neighborhood Connection**, Cleveland, OH
  Intern   08/2015 - 08/2016
- Collected and sorted data from grant proposals. Used data to create a networking map among the community members. Reviewed grant proposals and managed budgets
- Prepared brochures and shared the information in communities. Visited local non-profit organizations and gather information about training opportunities around Cleveland. Combined this information together and made brochures for the residents
- Pioneered a one on one interview program to understand residents' perception of neighborhood, explored Cleveland diverse communities and wrote materials for marketing item

projects

- **Cross-platform Skill Embedding,** Berkeley, CA
  Member 03/2020-present
- Applied Natural Language Processing to build an algorithm that can connect skill labels cross different educational platform.
- The Recall accuracy is 0.89.

- **UNICEF Asian Pacific Youth Innovation Challenge,** Kuala Lumpur, Malaysia
  Co-leader   09/2016 - 11/2016
- Developed a proposal of "Independent Account for Health Services" to address affordable health care issues for women and left behind children
- Selected in the final round of competition from 660 participants in 17 Asia Pacific countries (45/660)
- Attended the 3rd Asian Pacific High-Level Meeting on Children Rights as a youth representative

- **Student Research Training**, Provincial Education Department, Shanxi, China
  Team Leader   05/2013 - 04/2014
- Led group discussion, which includes setting a timetable, assigning people to tasks based on individual skills

- Designed solutions to raise awareness for environmental problems, conducted analysis of the reports from mass media and the questionnaires from the public
- Praised by the journalists from Shanxi Daily and Shanxi Evening Paper

- **Media Image of College Students Village Officer Investigation**, Shanxi, China
  Team Member   12/2012 - 04/2013
- Participated in the project with a senior student, focusing the situation of college student village officer and the development of villages in China
- Self-taught statistics knowledge. Independently gathered all the quantitative data analysis for the questionnaire. Gathered empirical data for analysis through personal interviews
- Won a report from China Youth Daily for group investigation (Press Link)

publications

- **Ren, C.,** Stuart, M., Chow, J. C. C., (2020) **Computational Social Welfare: Applying Data Science in Social Work. obo in Social Work. doi: 10.1093/obo/9780195389678-0286**
- Chow, J. C.-C., Cai, Y., Gu, T., Lyu Y., **Ren, C.**, Stuart M., Stone, S., (2019). Research on Rural Left Behind Children Welfare Policy Supported by Big Data. *Social Security Studies*,72-80. Retrieved from http://kns.cnki.net/kcms/detail/42.1792.F.20191015.1721.015.html
- Chow, J. C.-C., **Ren, C.**, Mathias, B., & Liu, J. (2019). InterBoxes: A social innovation in education in rural China. *Children and Youth Services Review*, 101, 217 224.https://doi.org/10.1016/j.childyouth.2019.04.008
- Cai, Y., Chen, S., **Ren,C.**, (2019). Research on the Impact of Executive-Employee Compensation Gap on Corporate Performance -Based on Panel Threshold Regression Analysis of China A-stock Listed Companies on Shanghai Stock Exchange and Shenzhen Stock Exchange. *Journal of Beijing Technology and Business University (Social Sciences).* 34(2):52 -62. (in Chinese)
- **Ren, C.** (2013). Knowledge Spread Under the View of Innovation Diffusion - Take TED Speech as an Example.". *Today's Mass Media*, 52-53. Retrieved from 10.3969/j.issn.1672-8122.2013.11.024. (in Chinese)
- Li, Z, **Ren,C.**, Li, X, Pardos, Z(in preparation). Learning Skill Transfer Models Across Systems
- Stuart, M., **Ren, C.**, (in preparation). Introduction to coding in R for social workers: Putting things right, once and for all.

presentations

- Lee, J., Jung, W., **Ren, C.**, Teaching Data Science in Social Work: Lived Experiences and Future Directions. Presentation at *Council on Social Work Education (*Noverber 2020)

- **Ren, C.**, Mathias, B., Chow, J. C.-C, Lyu, Y., Trends in Non-Profit Sectors: A Predictive Analysis of Agency Longevity in the US. Presentation at *Society for Social Work and Research.* Washington DC (January 2020)
- Mathias, B., **Ren, C.**, Chow, J. C.-C, Community Engagement as a Predictor of Social Capital: An Analysis from the Knight Soul of the Community Study. ePost at *Society for Social Work and Research.* Washington DC (January 2020)

- Stuart, M., **Ren, C.**, **Launching a Computational Social Welfare Lab: Reflecting on the Benefits and Obstacles Identified in the Grand Challenge.** Presentation at *Society for Social Work and Research.* San Francisco, CA (January 2019)
- Stone, S., Wu, Q., Stuart, M., **Ren, C.**, An Examination of School Influences on the Academic Achievement of Left behind Children in China. Presentation at *Society for Social Work and Research*. San Francisco, CA (January 2019)
- Scharlach, A., Bai, X., Stuart, M., **Ren, C.**, Zhang, Y., Effects of Personal, Social, and Environmental Characteristics on Negative Health Outcomes Among Older Adults in China. Presentation at *Society for Social Work and Research*. San Francisco, CA (January 2019)
- Stuart, M., Geiger, S., **Ren, C. A guided ethnographic reflection on a large-scale U.S.-China data science collaboration**. presentation at *Moore Sloan Data Science Annual Summit*. Salt Lake City, Utah (November 2018)
- Chow, J., **Ren, C.**, Mathias, B., InterBoxes: A Social Innovation in Education in Rural China. Presentation at *International Conference on Social Innovation in Child and Youth Services*. Beijing, China (October 2018)
- Stuart, M., **Ren, C.**, Launching a Computational Social Welfare Lab. Presentation at *Big Data Expo.* Guiyang, China (May 2018)

skills

- Programming skills in **Python, R,** and proficient with Microsoft Office.
- Familiar with **Machine Learning** (Cluster Analysis, Decision Tree), **Deep Learning** (Neural Network (Kears, Tensorflow)) and **Natural Language Processing** (Word2Vec, RNN)
- Experience in **HTML, SPSS, C++, Java, STATA and ArcGIS.**
- Native in Mandarin and fluent in English.
- Enjoy photography and familiar with **Finalcut, Photoshop and Lightroom**