# JIACHEN GONG

jgong3@cs.cmu.edu | (412) 509-6228
https://liliangong.github.io/
linkedin.com/in/jiachengong/

Master student at CMU, School of Computer Science. Dedicated to combining learner experience research pedagogy with data science, applying data mining/machine learning to fulfill learner needs.

## EDUCATION

**Carnegie Mellon University**
School of Computer Science
M.S.—Human-Computer Interaction
GPA: 3.88
August 2020

**Peking University**
School of Social Science
B.A. —Sociology
GPA: 3.72
July 2018

## SKILLS

**Data Science**
Python, Pandas, R
SQL, Firebase, AWS
Machine Learning
Statistics Modeling

**Learner Research**
Cognitive Task Analysis
Structured Interview
Survey Design & Implement
Rapid Prototyping

## RELEVANT COURSES

Machine Learning
Data Mining
Applied Data Science
Data Structure and Algorithm
Linear Algebra
Probability & Statistics
Personalized Online Learning

## HONORS

"Most Creative" Hack | Stanford
GSA Representative |CMU
Merit Scholarship | CMU
GSA Representative | CMU
Wu-Si Scholarship | PKU
Academic Excellence Award | PKU

## EXPERIENCE

**Amazon Alexa Social-bot Challenge**　　　　　　　**Pittsburgh, U.S.**
*Data Scientist*　　　　　　　　　　　　　　　　　*01/2020-present*

- Build up data analysis pipeline and success matrix for user-bot interaction data via AWS S3, DynamoDB, Athena and python
- Construct the information extraction module from scratch using NLTK, spacy, word2vec along with Google Knowledge Graph and Microsoft Azure API.

**See into AI -  Game-with-a-purpose**　　　　　　**Pittsburgh, U.S.**
*Data Scientist*　　　　　　　　　　　　　　　　　*01/2020-present*

- Generate human-AI game interaction daily log and SQL database via NoSQL firebase, google cloud and python
- Identify user learning pattern via a Hidden Markov model - Bayesian Knowledge Tracing, supporting AI algorithm and interface development

**Squirrel AI Learning**　　　　　　　　　　　　　**Pittsburgh, U.S.**
*Develop Lead*　　　　　　　　　　　　　　　　　*01/2020-present*

- Lead the develop process of online Mistake Analysis Related System (MARS) for student better learning outcome
- Synthesis insights from large quantity of student text input log data with natural langrage processing in Chinese

**Particle Media Inc.**　　　　　　　　　　　　　　**Beijing, China**
*Big Data Intern*　　　　　　　　　　　　　　　　*07/2017-10/2017*

- Produced 6 data analysis projects exploring user interactions to better understand user interests
- Proposed changes to the app based on competitive product research, customer interviews and quantitative research

## PROJECTS

**Lucid Drums**　　　　　　　　　　　**Stanford University, Palo Alto**
*Winner Project @ Treehacks, VR Drumming Game*　　　　　*02/2020*

- Created indulging drumming game with virtual drums that can be played with hands by hand detection algorithm
- Implemented rhythm detection & generation using pre-trained RNN model, enabled infinite choice of songs

**Institute of Economics of Education, PKU**　　　　**Beijing, China**
*Data Science Research Assistant*　　　　　　　　　*09/2018-07/2019*

- Processed and cleaned 2.8 million log records of Peking University undergraduates using SQL, python pandas
- Predicted 29,627 pairs of possible friendships using k-means clustering, created the first PKU Student Social Network Model

**Institute of Social Science Survey**　　　　**Peking University, Beijing**
*CHARLS Research Intern*　　　　　　　　　　　　*05/2016-08/2016*

- Led a team of 3 in China Health and Retirement Longitudinal Study (CHARLS) in contribution to generating nation-wide dataset
- Completed 100 qualitative interviews gathering historical data from 12 villages in a rural area of Hunan province