MENGYU (BONNIE) CHEN

Website: https://mengyuchan.github.io/ | Email: mengyuchan269@gmail.com

Research Interest

HCI, Visual Analytics, Human-Al Collaboration, Social Computing, Cognitive Science

Education

Chongqing University (CQU)

M.Eng. in Industrial Engineering (Major GPA: 3.9/4.0, Rank: Top 2%)

- Research Area: Human-computer Interaction
- Selected Courses: User Interface Design, Data Analysis & Mining, Machine Learning, Deep Learning, Mathematical Statistics, Optimization Methods, Graph Theory
- Online Courses Provided by Coursera: Data Structure & Algorithms, Discrete Math, Systems Programming, Data Visualization, Natural Language Processing

ESIEE-Amiens

Exchange Student in Industrial Engineering (GPA: 4.0/4.0)

• Courses: Directed Research in Industrial Engineering, French

Dalian Jiaotong University (DJTU)

B.Eng. in Industrial Engineering (Major GPA: 3.9/4.0, Rank: Top 1%)

 Selected Courses: Applied Statistics (score: 100/100), Linear Algebra (score: 100/100), Probability & Mathematical Statistics (score: 98/100), Database Principle and Application (score: 97/100), Human Factors Engineering (score: 95/100)

Publications

Bonnie Chen, Shaoqing Ge, Oleg Zaslavsky, Annie T. Chen. "Investigating Interaction Pattern in an Online Health Community for Older People". *Association for Information Science & Technology 2021, SIG USE Symposium.*

Bonnie Chen, Emily Wall. "Can You Perceive Your Ability: Analyzing Interactive Behavior Related to Dunning-Kruger Effect in Data Visualization". *IEEE Transactions on Visualization and Computer Graphics, under review.*

Bonnie Chen, Shaoqing Ge, Frances Chu, Andrew Teng, Oleg Zaslavsky, Annie T. Chen. "Investigating Interaction Pattern in an Online Health Community for Older People". *The Journal of the Association for Information Science and Technology, under review.*

Shambhavi Mahajan, **Bonnie Chen**, Alireza Karduni, Yea-Seul Kim, Emily Wall. "VIBE: A Design Space for VIsual Belief Elicitation in Data Journalism". *Eurographics/IEEE Symposium on Visualization 2022, under review.*

Presentation

SIG USE Symposium at ASIS&T 2021 Conference, Virtual

Oct. 2021

Investigating Interaction Pattern in an Online Health Community for Older People [PDF]

Amiens, France Mar. 2019 - Jun. 2019

Liaoning, China

Sep. 2015 - Jul. 2019

Chongqing, China

Sep. 2019 - Jun. 2022

Research Experience

Design Space of Belief-Driven Visualizations

Mentors: Professor Emily Wall, Professor Yea-Seul Kim, Dr. Alireza Karduni

Publication: Eurographics/IEEE Symposium on Visualization 2022, under review

- Synthesize a design space for belief-driven visualizations based on formative and summative interviews to guide the design process
- Coded existing elicitation examples within proposed design space
- Visually demonstrated how existing belief-driven visualizations from popular news media outlets span the design space

University of Washington, School of Medicine Characterizing User Engagement Mentors: Professor Annie T. Chen, Professor Oleg Zaslavsky Jan. – Dec. 2021 Publication: 1. Association for Information Science & Technology 2021, SIG USE Symposium

2. The Journal of the Association for Information Science and Technology, under review

- Investigated the interaction patterns between moderators and participants within VOCALE, an online health-related community
- Combined content analysis and social network analysis to explore moderator and participant interaction patterns within VOCALE
- Used linguistic inquiry and word count analysis to investigate the difference in moderation style over three rounds of discussion

Relationship Between Cognitive Bias and Expertise

Mentor: Professor Emily Wall

Publication: IEEE Transactions on Visualization and Computer Graphics, under review

- Replicated Dunning-Kruger effect in data-driven visual tasks using scatterplot visualization
 - Detected potential behavior patterns by interaction logs using SVM & RNN
- Designed a problem-solving task and implemented the interface to extend previous work

Decision Space of Multiverse Analysis

Mentors: Professor Jeffrey Heer, Ph.D. student Yang Liu

- Construct a decision space for analysts to guide the decision process when performing multiverse analysis
- Design and evaluate techniques (e.g., role-playing, showing alternative analysis from peers) that can be used to improve ideation of analysts during decision-making process

Selected Awards and Honors

- 2019 2020 Outstanding Graduate Student Scholarship, Top 2% graduates in CQU
- 2018 Gold Medal, National College Mechanical Innovation Competition, Top 1%
- 2017 Principal Scholarship, Top 1% undergraduates in DJTU
- 2016 2017 National Scholarship, Top 1% undergraduates in DJTU

Computer Skills

Proficient in Adobe Illustrator, Matlab, Tableau, SPSS, LaTex

Skilled in Data Management & Analytics (Python, R), Web Programming (JavaScript, HTML/CSS, Vega-Lite, D3.js, SQL, etc.),

Qualitative research: interview, ethnography, usability testing, user scenario, content analysis Quantitative research: survey, experiment design, statistical modeling, Machine Learning Models and Implementation, NLP

University of Washington, IDL Lab

Jul. 2021 – Present

Emory University, CAV Lab Oct. 2020- Present



Emory University, CAV Lab

Apr. – Nov. 2021