Shenghan Gao

4th CS B.E. supervised by *Prof. Quan Li*, School of Information Science and Technology(SIST), ShanghaiTech University

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Education

ShanghaiTech University *Shanghai, China*

Undergraduates, Major: Computer Science Sep. 2021 - Jun. 2025(Expected)

- GPA: 3.79 / 4.00, Major GPA: 3.95 / 4.00[1]
- Department Rank[2]: 11 / 234; Major Rank: 8 / 178
- Relevant Course:
  Human-Computer Interaction (A+), Data Visualization, Data Mining, Computer Architecture I, Introduction to Machine Learning (A+), Algorithms and Data Structures, Probaility and Statistics for Information Science, Mathematical Analysis I&II (A+ for II), Linear Algebra I, etc

University of California, Berkeley *Berkeley, CA*

Exchange Student in EECS Aug. 2023 - Dec. 2023

- GPA: 4.00 / 4.00
- Relevant Course:
  Introduction to Software Engineering (COMPSCI 169A), Efficient Algorithms and Intractable Problems (COMPSCI 170) (A+), Introduction to Artificial Intelligence (COMPSCI 188)

Experience

ViSeer Lab *Shanghai*

Research Internship supervised by *Prof. Quan Li* Dec. 2022 - Present

At ViSeer Lab, I receive academic training and participate in multiple projects, some of which have been published or are under review, such as LiveRetro. Through these experiences, I have gained expertise in **HCI** and **Data Visualization** methodologies, developed strong teamwork and interpersonal skills, and mastered various techniques. I aim to further my knowledge in **HCI**, **Data Visualization**, and **Social Computing**, striving to bridge the gap between humans and machines.

Publication

LiveRetro: Visual Analytics for Strategic Retrospect in Livestream E-Commerce *VIS 2023*

Yuchen Wu, Yuansong Xu, **Shenghan Gao**, Xingbo Wang, Wenkai Song, Zhiheng Nie, Xiaomeng Fan, Quan Li

- Identified design requirements supporting a comprehensive strategic retrospect in livestream e-commerce and informative computational features that facilitate the analysis of live performance.
- Implemented **LiveRetro**,an interactive visual analytics system, supporting the retrospective analysis of livestream e-commerce strategies from a multifaceted and empirical perspective.
- Conducted case studies and expert interviews that proved the effectiveness and usability of the system.

From Requirement to Solution: Unveiling Problem-Driven Design Patterns in Visual Analytics *Under Review*

Yuchen Wu, **Shenghan Gao**, Shizhen Zhang, Xiaofeng Dou, Xingbo Wang, Quan Li

- Established a topology for data, requirements, and solutions based on 220 Visual Analytics paper.

TaLens: Exploring the Impact of Talent Mobility in Acquisitions on Metropolitan Statistical Area Innovation Capacity via Visual Analytics *Under Review*

Ruofei Ma, **Shenghan Gao**, Xiaofeng Dou, Yuheng Shao, Chenyi Zhang, Suting Hong, Chuhan Shi, Quan Li

- Developed TaLens, an interactive visual analytics system designed to uncover the effects of talent mobility.

Influence Maximization in Temporal Social Networks with a Cold-start Problem: A Supervised Approach *Under Review*

Laixin Xie, Ying Zhang, Xiyuan Wang, Shiyi Liu, **Shenghan Gao**, Xing Jiang, Xingxing Xing, Wei Wan, Haipeng Zhang, Quan Li

- Participated in offline experiments, replicating Baseline Models.

[1] Since ShanghaiTech does not provide an official formula for calculating major GPA, my major GPA is based on the weighted mean of courses with IDs that include "CS", "SI", and "COMPSCI".

[2] In SIST I belong to, there are 2 majors, Computer Science and Electronic Engineering

An automatic pedal device for eliminating the gap between railroad train doors and subway platforms *China Utility Model Patent*

Shenghan Gao, Han lu, Yiwei Gong, *Prof. Hongliang Pan* supervising Aug. 2021

- Developed a machine structure to bridge the gap between railroad train doors and subway platforms, avoiding passenger injuries.
- Publication number (authorization): CN213973962U

Selected Projects

Which Comment should I Look? A Data Driven Analysis on Reviews from the Developers' Standpoint *Feb. 2024 - Jun. 2024*

Shenghan Gao, Mingzheng Wu, *Prof. Haipeng Zhang* supervising | CS173 Data Mining

- Lead a quantitative study on feature importance from developers' perspective, taking Steam as the user scenarios.
- Propose two indicators to evaluate the value of comments from the developers' corresponding reviews.
- Utilize traditional methods, like Pearson coefficient, and recommendation models with XAI techniques, like SHAP, to quantize the importance of features.

DIVAS: A Visual Analysis System of Vehicle Driver Profiles *Apr. 2023 - Jul. 2023*

Shenghan Gao, Shuhao Zhang, Xiaofeng Dou, Xiyuan Wang, *Prof. Quan Li* supervising | ChinaVIS Data Challenge

2023 Third Prize

- Conducted a portrait analysis of the driving behavior of traffic participants.
- Constructed a quantitative scoring system to rate profiles.
- Developed **DIVAS**, an interactive visual analytics system to assist experts in building participant profiles.
- Conducted case studies demonstrating the system's effectiveness and usability.
- Presented our work orally at ChinaVIS 2023.

Skills

Program Language	Javascript, Python, C, C++, Ruby, SQL, etc
Framework	Vue, D3, jQuery, BootStrap, PyTorch, Rails, etc
3D Model	Blender, Inventor, SolidWorks, etc
Research	Human-Computer Interaction, Data Visualization, Machine Learning, Deep Learning, Agile Development, etc
Language	Mandarin (native), English (TOEFL: 99)

Honors

T+he Special Scholarship for the Undergraduate 3+1 Overseas Exchange Programe for the 2023-2024 academic year	Jun. 2024
Merit Student of ShanghaiTech University in 2022 - 2023	Dec. 2023
ChinaVIS Data Challenge 2023 Third Price	Jul. 2023
Merit Student of ShanghaiTech University in 2021 - 2022	Nov. 2022

Services

Teaching Assistant

GEHA 1242 - Human-Animal Interaction	*Jul. 2024*
ARTS 1422 - Data Visualization	*Feb. 2024 - Jun. 2024*

Extracurricular Activities

Student Assistant for Shangdao College *Sep. 2021 - Present*

Provide assistance in organizing college activities and help new students adjust to university life.

Volunteer work for ShanghaiTech Welcome Party *Sep. 2021*