

Zhijie Gao

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Education

Carnegie Mellon University

Pittsburgh, PA

Master of Information Systems Management-Business Intelligence & Data Analytics

Expected Duration: Sep 2024-May 2025

Bachelor of Information Systems

QPA: 3.87/4.0

Duration: Sep 2020-May 2024

Double major in Statistics and Data Science

Minor in Science and Technology Studies

Research Interest

I am interested in leveraging machine learning and statistical methods to explore the dynamic relationship between technology and society. My interdisciplinary background in both quantitative and qualitative research fuels my passion for addressing complex social challenges mathematically. I am particularly interested in real world spatial-temporal pattern mining to uncover how technology both shapes and is shaped by broader social systems.

Research Projects

EventGPT: tracing sequential social interactions at shared locations

Heinz College, Carnegie Mellon University, Advised by Professor Shixiang Zhu, Beibei Li

March 2024-Present

- Modeled spatial-temporal smartphone data as sequential user interactions at shared locations
- Derived user embeddings with language models, including contextual transformers and SkipGram
- Applied embeddings to prediction tasks, such as forecasting user interactions at specific locations
- Currently refining the methodology and preparing findings for publication

Evaluation on Information Systems Research

Heinz College, Carnegie Mellon University, Advised by Professor Rahul Telang, Narayan Ramasubbu

May 2024-Present

- Collected and analyzed citation network data of the field Information Systems
- Evaluated the interdisciplinary impact of the field via visualizations and statistics
- Working towards a presentation/commentary

Analyzing the promise of decentralization in free and open source software: a case study on video game mods *Working Paper*

Carnegie Mellon University, Advised by Jimmy Mckee

May 2022-May 2023

- Explored the success and failure of open source technologies through the lens of video game mods
- Conducted online interviews and qualitative analysis to assess community driven software
- Admitted by Summer Undergraduate Research Fellowship in CMU

Professional Experience

Technology Consultant

Agahozo-Shalom Youth Village

Rwanda, May 2023-Aug 2023

- Led the team and developed REST-Django application for alumni management

- Migrated data storage from Google Sheets to PostgreSQL database to improve data consistency
- Managed end-to-end Git workflows for the project
- Deployed the application on a local Ubuntu-20.04 server working with local service providers

Application Development Intern

Carnegie Mellon University Student Affairs IT Team

Pittsburgh, May 2022-Mar 2023

- Developed web and console application in C# on .Net for campus housing
- Addressed intricate edge cases to tackle complicated business requirements
- Created and managed SQLServer data tables for campus housing

Technical skills

Python, PyTorch, PostgreSQL, R, C, Java, C#

Honors

Alpha Iota Delta Honor Society Nomination (top 10% of undergraduate class)

Heinz MISM-BIDA Scholarship (30% of full-time tuition)

Dietrich Dean's List, High Honors:Fall 2020, Spring 2021, Fall 2021, Spring 2022, Spring 2024

Dietrich Dean's List, Honors:Fall 2022, Spring 2023