# Siyu Huang

West Lafayette, IN | 608-658-0143 | shuang353@wisc.edu

## Education

**Purdue University**| West Lafayette, IN                                      Expected 2027
Doctor of Philosophy: Computer Science

**University of Wisconsin – Madison** | Madison, WI                              Dec 2021
Bachelor of Science double major: Computer Science & Data Science            GPA 3.66/4.00
- Certificate: Game Design

Research Interest
- Data Visualization and Human-Computer Interaction

Relevant Coursework
- Software Engineering, Computer Graphics, Data Visualization, Artificial Intelligence, Algorithms, Game Design, Digital Imaging Studio

## Publications

Investigation on Data Visualization Accessibility in Video Games                 2021
- Siyu Huang, Yea-Seul Kim.
- Under review of EuroVis 2022.
- This project discusses data visualizations in video games and their accessibility support to visual-impaired players. By surveying blind gamers, some problems are found, and we propose potential solutions.

Image data visualization using t-SNE for Urban Pavement Disease Recognition       2021
- Siyu Huang
- Accepted by the 4th International Conference on Computing and Data Science (CONF-CDS 2022).
- From analyzing pavements images of a city and extracting features, this project visualizes several features using t-distributed stochastic neighbor embedding.

## Employment

Data Science Institute at University of Wisconsin-Madison                          2021
- AI for Africa Project
- Lead the front-end work of a multi-purpose app featuring messaging, social media, machine translation and chatbot.

## Projects

Data Sonification Survey Website                                                    2021
- As part of a research project, this website lets people "hear" data by sonifying and it surveys people about their understanding which can be stored in the back end via Firebase.
- Developed the whole website solely, including front-end, back-end, and testing.

Pickled Beats Game                                                                   2021
- A 2D game developed by Unity where players create a garden that in turn generates unique music. Built with 6 other members in UWM Game Lab.
- Designed the User Interface and title screen of the game and coded the player controls.

Movie Chatbot Website                                                                2021
- This website featuring a chatbot that talks like movie characters.
- Developed the website solely, and Universal Sentence Encoder is used to generate the appropriate response to user's input.

The Factory Game                                                                     2021
- A first-person puzzle-platform game based on the story of an artist; developed by Unity.
- Developed the control of the character and coded the objects interaction.

CareerHelp App                                                                       2021
- Led the front-end work of a mobile app that aims to provide help for job applicants.

Ice Cover Regression Study                                                           2020
- Implemented a gradient descent algorithm to predict the number of ice days in Madison for a future year based on past records.

COVID -19 Growth Trend Study                                                         2020
- Used hierarchical clustering to visualize the conditions that several regions dealing with COVID-19.

Platforming Game "Climb Up"                                                          2020
- A 2D video game made by JavaScript client-side library p5.

## Skills

Programming languages: JAVA, JavaScript, HTML, CSS, Python, and C#.
Other: Adobe Premiere, Final Cut Pro; Unity game engine
Languages: Chinese, English