

Yixuan LI

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EDUCATION

University of California, Santa Barbara, United States

Sept. 2021- Present

- Master of Science in Media Arts and Technology
- Cumulative GPA: 4.0/4.0
- Research Topics: Data Visualization, Technology for Public, HCI, Computational Aesthetics
- CourseWork: Future User Interface, Designing Expressive Technologies, Digital Audio Programming, Data Visualization, Computer Graphics

Fudan University, Shanghai, China

Sept. 2017- Jun. 2021

- Bachelor of Science in Data Science and Big Data Technology
- Coursework: Statistical Machine Learning, Artificial Intelligence, Deep Learning, Data Visualization, Museum Informatic, Formal Design of Museum Display
- Award: Undergraduate Outstanding Scholarship, Undergraduate Professional Scholarship in STEM Major, Mathematical Contest in Modeling Honorable Mention Prize

PUBLISHED WORK

- **Yixuan Li** et. al. Diverse Interaction Recommendation for Public Users Exploring Multi-view Visualization using Deep Learning. IEEE Transactions on Visualization and Computer Graphics (VIS'22), Accepted, Oct 16-21, Oklahoma, USA.
- **Yixuan Li**. *Analysis of the Application of Image Recognition in the Field of Museum Digital Content*. Benevolence and Excellence: Digital Humanities and Chinese Culture (CDH 2020) Oct 19-21, 2020, Shanghai, China.
- **Yixuan Li** et. al. *Finding the Key Factors for Movie Influence Using Machine Learning and Sentiment Analysis*. 2nd International Conference on Machine Learning, Big Data and Business Intelligence (MLBDBI 2020) October 23-25, 2020, Chengdu, China.

RESEARCH EXPERIENCE

Visualization and Computational Aesthetics

Sept. 2021 - Present

Graduate Researcher, Advisor: George Legrady, Experimental Visualization Lab, UCSB.

- Research on 3D visual representations of cross-modal data including audio, speech and text.
- Created an art installation that converts audience speech input to architectures in 3D space in real-time using deep learning in Panda3D. The work was submitted to ISEA2023.
- Design and instruct courses on Computational Aesthetics and Data Visualization, covering topics on computer vision, text2img algorithms and tools, and 3D data visualization using Processing.

Data Visualization For The Mass

Sept. 2020 – Sept. 2021

Research Assistant, Advisor: Siming Chen, FDU-VIS, Fudan University.

- Researched on how to promote knowledge accessibility to novice users using data visualization.

- Developed a data visualization system inspired by Hoag's Object to present Su Dongpo's life story using D3.js. The corresponding video won the Storytelling Contest of IEEE PacificVis'21.
- Conducted a working pipeline that provides interaction recommendations for public users using multi-view visualization in public education scenarios. The work was accepted by IEEE VIS22.

Posters' layout automatically design system with AI and CV

July 2020 – Nov. 2020

Research Assistant, Advisor: Ling Fan, Design & AI Lab, Tongji University.

- Developed a Reinforcement Learning framework that resembled the actual designing process and used a Graph Convolutional Network for the purpose of layers' positions initialization.
- Built aesthetic evaluation functions with reference to design theories to extract layout features and constructed an aesthetic evaluation model as a step-out condition for RL generation process
- Developed and packaged the template of particle, material, and lighting effects with the help of Unreal Engine 4 to make 3D development easier and more convenient for general designers.

Recognizing Characters in Art History Using Deep Learning

May 2020 – Sept. 2020

Research Assistant, Advisor: Andreas Maier, Pattern Recognition Lab, Friedrich-Alexander-Universität

- Conducted image classification and innovatively retrained the ResNet50 network on the style-transferred-VggFace dataset by adding more image features to achieve a greater accuracy.
- Applied Grad-CAM algorithm for the training process visualization to understand which semantic information in the scenes the model captures to make classifications.
- Prepared and cleaned dataset consisting of 10,000 + images with face and body crops of characters in the Annunciation of the Lord, covering the first century until 800 AD.

EXTRACURRICULARS

The 3rd China International Import Expo

Nov. 2020

Volunteer of the opening ceremony

Shanghai, China

Viva La Vida (Online Database for Sharing Human Stories and Art)

Jan. 2020 - Apr. 2020

Volunteer of product development and cross-cultural analysis

Beijing, China

Fudan Ballroom Dance Association

Sept. 2019 -June 2020

President

Shanghai, China

SKILLS AND INTERESTS

Language: English, Chinese

Program: Python | R | C | C# | JavaScript | D3.js | Processing | MATLAB | PyTorch | TensorFlow

Software: Unity | Unreal Engine | TouchDesigner | AutoCAD | Blender | Max/MSP | Logic Pro

Certificate: Machine Learning Certificate by Andrew Ng