

DANNI LIU

1 Brookings Dr, St. Louis, MO 63130
+1 3148912918 | danni.l@wustl.edu | dnliu0.github.io

EDUCATION

Washington University in St. Louis

B.S. in Computer Science (Minor: Human-Computer Interaction)

Major GPA: 4.0/4.0; GPA: 3.98/4.0

St. Louis, MO

Sept. 2021 - May. 2023

University of Washington

Major: Undeclared

GPA: 3.91/4.0

Seattle, WA

Sept. 2019 - March. 2021

Relevant coursework: Visualization, Cognitive Science, Human-Centered Design, Probability and Statistics, Data Structures and Algorithms, Object-Oriented Programming, Rapid Prototype Development

PUBLICATION

Wang, Y.B.*, Pan, F.ZH.*, **Liu, D.N.***, Hu, J.X.. Music-to-Facial Expressions: Emotion-Based Music Visualization for the Hearing Impaired. *The 13th Symposium on Educational Advances in Artificial Intelligence (EAAI-23)* (accepted)

RESEARCH EXPERIENCE

Visual Alchemist (funded by NSF Institute for Data Driven Dynamical Design (ID4))

Visual Data Analysis Group Washington University in St. Louis

Undergraduate Research Assistant to Professor Alvitta Ottley

St. Louis, MO

May. 2022 - Present

- Designed and developed a web-based visual analytic platform to aid and accelerate material design and discovery
- Integrated the visual interface with Google API services for a smooth transition to our services
- Incorporated features such as visual comparison of compositions and their syntheses for material design

Human-Aware AI in Sound and Music

Future Laboratory of Tsinghua University

Principle Member

Beijing, China

March. 2022 - Jun. 2022

- Designed and implemented an emotion-based music visualization system which transformed audio music to avatar facial expressions to facilitate musical experiences for hearing-impaired users

How Robot-Robot Contextual Behaviors Elicit Audiences' Narrative Descriptions

Future Laboratory of Tsinghua University

Research Assistant to Professor Haipeng Mi

Beijing, China

Jun. 2019 - Sept. 2019

- Investigated the effects of contextualized storytelling on the story comprehension and narrating ability of young children
- Created and administered a survey to 150+ participants to assess the visual components of the swarm robots to understand visual cues-emotion association

WORK EXPERIENCE

RealAI Technology Co., Ltd

User Experience Intern

Beijing, China

May. 2021 - Aug. 2021

- Identified market opportunities and user problems by synthesizing past research and conducting interviews with end-users, and presented key insights to executives to finalize design requirements
- Collaborated with design and engineering teams on product iterations based on usability tests, with over 90% of the user feedbacks successfully implemented as functions or resolved at the final releasing stage
- Launched AATP, an anti-adversarial playground for CV engineers to participate in security awareness training, with a team of four developers and one UI designer in two months

Camia, Stand-alone Game Start-up (Ready for Beta Test)

Co-founder and developer

China

Feb. 2021- Jun. 2021

- Finished the beta version of a commercial game consisting of game design, engineering, art and music in four months with a 12-person team
- Developed detailed product goals and a strategic plan to oversee the team's progress on design and development
- Built the game and implemented features including scene transitions, card shuffling and hit effects with Unity and C#

Shanghai Qiyue Education Technology Co., Ltd*Software Development Engineer Intern*

Shanghai, China

Jul. 2020 - Aug. 2020

- Worked with a team of eight to build the Shanghai Senior High School Chemistry entrance examination system with a fully automated AI algorithm
- Developed the functionality of evaluating student's experimental operations and a database for teachers to manage student information and arrange test questions

TEACHING EXPERIENCE

Washington University in St. Louis, McKelvey School of Engineering

St. Louis, MO

Engineering Tutor

Spring 2022 - Present

Courses: Introduction to Computer Science (CSE 131), Probability and Statistics for Engineering (ESE 326)

Teaching Assistant

Spring 2022 - Present

Courses: Logic and Discrete Mathematics (CSE 240), Data Structures and Algorithms (CSE 247)

ADDITIONAL INFORMATION

Computer skills

Java, C++, Python, JS, React, Flask, D3, Plotly, InDesign, Figma, Photoshop, Adobe Premiere

Languages

Chinese Mandarin (Native), English (Proficient)

SELECTED AWARDS AND HONORS

- Dean's Select Fellowship, Washington University in St. Louis 2022
- Dean's List, Washington University in St. Louis Fall 2021, Spring 2022
- Dean's List, University of Washington, Seattle Winter 2020, Spring 2020, Fall 2020, Winter 2021