Vencent Vang

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EDUCATION

- **Stanford University**
Bachelors of Science - Computer Science

TECHNICAL SKILLS

Skills & Tools: Python, C/C++, CSS, HTML, JavaScript, GitHub, Sketch UI/UX, Blender, 3D Modeling, Numpy, Pandas, TensorFlow, Data Entry, Google Drive (Docs, Forms, Sheets, Colab), Microsoft Office Suite (Excel, PowerPoint, Word).

RELEVANT WORK EXPERIENCE

- **Stanford Student Service Center** — *Aug. 2024 - Current*
Student Assistant — Stanford, CA
  – Handling sensitive data and forms, ensuring accurate data entry and management within institutional policies.
  – Suggested and collaborated on improvements for the university's student service websites, focusing on optimizing design and user interaction to streamline access to information and services.
  – Contributing to the design and testing of an automated Chatbot system aimed improving website navigation and enhancing the student-user experience.

- **NASA - National Aeronautics And Space Administration** — *Jan. 2023 - Aug. 2023*
Extended Reality (XR) Development in Omniverse and UE5 — Houston, TX
  – Collaborated in the development and modeling of NASA JSC's XR Operation Support System (XOSS), a multi-user XR simulation software crucial for next-generation human space exploration in hyper-realistic environments.
  – Performed data analysis on XR simulation data outputs to enhance system performance; utilized advanced troubleshooting to maintain data integrity and optimize network configurations for end-user application.
  – Participated with external technology providers and partner organizations to troubleshoot and expand on projects, and ensure optimal performance and reliability across NASA's collaborative platforms.
  – Assisted in refining user interaction models within the XR environment, contributing to the design of intuitive interfaces that support astronaut training and mission simulations.

- **Virtual Human Interaction Lab** — *Nov. 2022 - Jan. 2023*
Research Assistant — Remote
  – Collaborated on research exploring enhanced learning experiences and social connections made in VR technology.
  – Drafted data-driven reports to communicate research findings and highlight key trends and actionable insights.
  – Performed statistical analysis review on recorded VR experiment data from 60+ individuals to assess social impacts; utilized Excel and Google Sheets for data processing and visualization.

PROJECTS

- **TRANSAR - Real-Time Augmented Reality Sign Language Translator** — *Project Link*
Software Engineer & ML Developer | April 2024 - June 2024
  – Developed an Machine Learning (ML) application with open source libraries such as PyTorch and TensorFlow to provide an immersive and interactive translation experience.
  – Trained Fully Connected Network (FCN) models on a dataset of 80,000+ American Sign Language images for real-time data analysis; achieving a 81% accuracy in gesture recognition and interpretation across various models.
  – Visualized data distribution, model performance metrics and training through graphs and plots using Matplotlib.

- **ISARAS - Instant Shelter And RAdiation Shield** — *Project Link*
Spacecraft Software Engineer | April 2023
  – 1st Place Finisher in NASA JSC's 2023 Spring Hackathon's Challenge: "Lunar Astronaut Protection Program".
  – Co-designed CAD model of the ISARAS applying data virtualization techniques to evaluate shelter effectiveness in extreme conditions.
  – Engineered to protect Lunar Astronauts against life-endangering emergencies from minor cracks in EVA Space Suits to catastrophic Solar Particle events, providing a theoretical 24% increase in astronaut survival chances.

- **Mindscape VR** — *Project Link*
Software Developer, 3D Modeler, & UI/UX Designer | March 2023
  – Metaverse Creators Hackathon Runner-up; 2nd-Place Project Winner ($750 Award)
  – VR therapy application with a grounding environment and adaptive audio-visual elements, creating a personalized therapeutic experience through APIs to OpenAI's ChatGPT AI.
  – Integrated voice recognition and synthesis, enhancing immersion by enabling dynamic conversational interactions between Users and ChatGPT AI with Text-to-Speech and Speech-to-Text.