Wenjuan Huang

Houston,TX | (+1)281-236-0117 | wenjuanhuang2023@gmail.com | wenjuanhuang2023.github.io

Education

M.S. in Computer Science, University of Houston | Houston, TX 08/2021 – 05/2024(expected)
M.S. in Computer Application, Tianjin University of Technology | Tianjin, China 09/2007 - 03/2010
B.S. in Computer Science, Shandong University of Science and Technology | Taian, China 09/2003 - 06/2007

Technical Skills

Languages: Python, C/C++, SQL, ASP.net, JavaScript
Tools: OpenCV, TensorFlow, scikit-learn, PIL, bootstrap, DBMS, SQL Server, MySQL, Git, CMake, anaconda, Linux
Keywords: Computer Vision, Machine Learning, Visualization, web application

Work Experience

Image Recognition Software Engineer | Beijing Guowang Fuda Technology Devt. Co., Ltd. 08/2012 - 07/2017

- Developed a C++/MFC application to receive the raw video frames from video devices by UDP, then decode the raw video frame using H.264, and display by using CImg.
- Developed a C/C++ SDK for receiving weather data from microclimate devices by UDP, then saving the weather data to an SQL server table.
- Developed a C/C++ SDK for automatic detection of foreign objects intruding into power networks by using OpenCV.
- Developed a C/C++ SDK for automatically detecting ice thickness on substation equipment.

C++ Software Engineer | Beijing Founder Apabi Technology Co., Ltd. 03/2010 - 07/2012

- Developed a C/C++ SDK to identify the chapters on the Contents page, clicking on a chapter can enable users to jump to corresponding text pages.
- Developed a C/C++ SDK to detect and identify tables present in ebooks.
- Developed a C/C++ SDK for customized, to index articles and generate XML structured data as output.

Projects

Visualized SQL Server Database 11/2023 - 12/2023

- Designed and implemented an SQL Server database to store and manage project-related data.
- Visualized the database on the PowerBi dashboard.
- Developed a CRUD (Create, Read, Update, Delete) web application using ASP.NET.

Frailty Assessment Research based on Wearable-Based Signals from Cardiac Patients 10/2023 - 12/2023

- Utilized patient information to extract features before conducting physical tests, employing machine learning methods for frailty prediction.
- Utilized accelerometer raw data to extract features, combined with patients' information for predicting frailty through machine learning methods.

Computer Vision Course Project 01/2023 - 05/2023

- Scraped medicine images, and labeled them.
- Used PaddleOCR model and ResNet50 to do prediction respectively, combined the two model's probabilities to generate the final result.

Chat with Robot 05/2023 - 06/2023

- Implemented advanced voice recognition technology to convert spoken language into text.
- Integrated an AI library to enable natural language understanding and contextually relevant responses.
- Used text-to-speech synthesis for converting AI-generated textual responses into natural-sounding voice.

Publications

Study of Sitting a Micro-Station Based on Correlation Analysis,Advances in Meteorological Science and Technology,July 2017
Icing Thickness Measuring Based on Improved Hough Transform, Modern Electric Power, Jun.2014
A method of Genetic Algorithm optimized Extended Kalman Particle Filter for nonlinear system state estimation, the 5th International Conference on Natural Computation (ICNC'09).

Particle Swarm Optimized Unscented Particle Filter for Target Tracking, 2009 Second International Congress on Image and Signal Processing.