TZU-JUI CHEN

447-902-0163 |tzujuic2@illinois.edu| raychen0617.github.io | github.com/Raychen0617 | Available for Full Time Internship/Fall-Coop

EDUCATION

University of Illinois at Urbana-Champaign (UIUC)   Expected: December 2024
Master of Science in Computer Science   GPA 4.0/4.0
Related Coursework: Data Mining   User Interface Design   Cloud Computing   Distributed System   Topics of SWE

National Chiao Tung University (NCTU)   June 2022
Bachelor of Science in Computer Science   GPA 3.91/4.3
Related Coursework: NLP   AI   ML   Database System   Computer System Administration   Computer Graphics

TECHNICAL SKILLS

Programming Languages: C/C++, Python, JavaScript, TypeScript, MySQL, SQL, React, Html/CSS
Tools: Android Studio, Unreal Engine, Pytorch, Tensorflow, OpenGL, NodeJS, ExpressJS, MongoDB, Docker, Git, AWS

WORK EXPERIENCE

Software Engineer Intern, FOXCONN, Taipei Taiwan   July 2022 - January 2023
- Implement advanced optimization techniques, including NAS, pruning, and KD on YOLOv5 using Pytorch
- Attain a remarkable improvement of over 5% in mAP while reducing GPU runtime by 10% in YOLOv5
- Develop a general and exceptionally optimization pipeline for CNN-based neural networks

Undergraduate Research Assistant, AIMMLAB, Hsinchu Taiwan   July 2021 – November 2022
- Utilize visualization tools to break down neural networks and gain insights into the inner workings of models
- Support paper publications through conducting additional AI experiments, including prototype implementation

Software Engineer Intern, Taiwan Main Orthopaedic Technology, Taichung Taiwan   July 2020 – September 2020
- Applying OOP expertise to develop a virtual anatomical dissection table using C++ and Unreal Engine
- Construct and modify functions such as note-taking, body dissection, and converting CT/MRI to 3D formats by shaders

PROJECT HIGHLIGHTS

Restaurant Ordering System App   December 2023 – March 2023
- Developed a restaurant ordering website catering to both customers and owners
- Implemented features such as user authentication, order processing, cart checkout, and searching, sorting restaurants
- Leveraged Node.js, Express.js, React, and MongoDB to construct a robust full-stack side project

Travel Tales Journal App   September 2023 – December 2023
- Develop a journaling app by Android Studio, incorporating multiple UI principle, such as perception, visual design
- Improve the app by testing with low-fidelity prototypes, interviews, and user evaluations across diverse personas

Neural Radiance Field (NERF) Augmentation   October 2021 – February 2022
- NERF is a technique that creates 3D scenes from 2D images using deep learning techniques
- Modify and utilize NERF to synthesize different angles of images in our dataset to achieve data augmentation

Badminton Coach AI   September 2020 – May 2021
- Analyze badminton players' poses and ball types through real game videos and generate advanced data
- Achieve over 90% accuracy on pose-detection and 75% accuracy on ball-type prediction

PUBLICATIONS

Most Important Person-Guided Dual-Branch Cross-Patch Attention for Group Affect Recognition   July 2021 – December 2022
- The research paper has been accepted for publication at ICCV 2023
- Devise a dual-branch vision transformer network for group affect recognition with minimum data preprocessing
- With parameters less than 10x, our proposed model outperforms state-of-the-art methods