Meng-Chen Lee

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EDUCATION

University of Houston – Ph.D. of Computer Science   Aug 2020 – Aug 2025

National Cheng Kung University – Bachelor of Biomedical Engineering   Sep 2015 – Aug 2019
- Overall GPA: **3.45/4.3**, Upper-division GPA: **3.65/4.3**
- Related Coursework: Data Structure, Algorithms, Operating System, Object Oriented Programming and its Applications, Discrete Mathematics, Linear Algebra, Computer Graphics, Practical Computer Graphics Skills for Technical Artist, Introduction to Rendering Methods, Programming and Applications

EXPERIENCE

Competition, EMedIC, Chinese University of Hong Kong   Jun 2018 – Aug 2018
An Image-Guided Robot for Phlebotomy to Reduce Needle Stick Injuries in Resource-Scarce Areas
- Determined the median cubital vein for drawing blood by image-processing
- Built a robotic system to automatically move to the insertion point
- Led my team members to complete missions on time and integrated image-processing, mechanic system, and user interface by python on Raspberry Pi
- Collaborated successfully and qualified for the finals

Co-op, Brain Navi Biotechnology Co., Ltd.   Sep 2017 – Jan 2018
Reconstruction the Real-time World Coordinate of a Phantom Using a Depth Camera and Object Tracking
- Used OpenCV to capture the features of a phantom by C++
- Utilized Intel SDK to get the depth from a depth camera
- Tracked the features and calculated the displacement and rotation of the phantom
- Calculated the world coordinate of the phantom in real-time

Special Project Teacher, Tainan Bilingual International Education Association   Mar 2017 – Jun 2017
- Created remote car by 3DP and made it easy for children to assemble
- Designed the syllabus for third-grade elementary school students
- Taught students programming by controlling the remote car on a programming platform *SNAP!*
- Collected feedback from students and improved the feasibility of the elementary school's programming education

PROJECTS

Mobile Game Creation, Web Programming   Sep 2018 – Jan 2019
- Built concept and specification of the game and defined the story and art style
- Built the front end of the game with Phaser
- Utilized MySQL to create a database and created the server using Node.js

Dog Species Identification, Computer Aided Engineering   Sep 2018 – Jan 2019
- Trained neural networks to recognize dog species through transfer learning using AlexNet
- Created GUI to load images or recognize the species in real-time

Simple 3D Software, Introduction to rendering methods, programming and applications   Sep 2018 – Jan 2019
- Utilized OpenGL to create a window
- Designed GUI using Dear ImGui
- Built a simple 3D software for users to create, displace, rotate, deform, and color models

HONORS AND AWARDS

Silver Award - Prague, Czech Republic   Jun 2018
IFMBE Student Design Competition at the IUPESM World Congress on Medical Physics and Biomedical Engineering
- Create a telemedicine device to provide prenatal care in resource-scarce communities

Honorable Mention - ICMIT, Suzhou   Mar 2018
3D Scanning Application Competition
- Utilized Blender to create a model to repair cranial bone

TECHNICAL SKILLS

Programming Languages: C++, C, C#, Python, JavaScript, PHP, SQL, MATLAB
Tools: Git, Visual Studio, CMake, Node.js, HTML, CSS