CURRICULUM VITÆ

JUNWEI (JETT) CHEN

"Junwei Chen is a System Design Engineering Expert, specializing in systems safety, human factors, cognitive systems engineering, mechanical design, manufacturing, automation, and stress/strain analysis."

M.Sc. in System Design Engineering

BEng in Mechanical Design & Manufacturing and Automation

1. BIOGRAPHY

Junwei Chen has a Master of Engineering in System Design Engineering from the University of Waterloo. Specializing in human factors and robotic system design, Junwei completed a Master's thesis focusing on an interdisciplinary engineering approach that integrated cognitive systems engineering, heuristic evaluation, and artificial intelligence algorithms. This work was directed towards creating therapeutic solutions for children with selective mutism.

As Lead System Design Engineering Expert, Junwei provides comprehensive consulting and advisory services. He specializes in conducting thorough preliminary system design engineering assessments aimed at pinpointing the strengths and weaknesses present in evidence and expert opinions. Additionally, Junwei conducts detailed system design engineering examinations tailored specifically for transportation accidents, product, and premise liability cases.

In his professional experience as a computer engineer, Junwei designed and implemented a gesture detection system using Arduino, Python OpenCV, and MediaPipe, grounded in principles of human-computer interaction and biomechanics. He also worked as Robot Engineer at Gree Electric Appliances where he developed a vacuum robot.

Junwei earned a Bachelor of Engineering (Hons) in Mechanical Design & Manufacturing with Automation from Liverpool John Moores University, UK. Graduating as Valedictorian with Distinction, Junwei demonstrated expertise in using AutoCAD, Solidworks, ANSYS for advanced engineering design, and finite element analysis (FEA) to evaluate and optimize stress, strain, and deformation under various conditions. Junwei's expertise includes identifying and addressing high-stress points and design vulnerabilities.

Junwei Chen's skills encompass system deployment and integration, forensic analysis, 3D modeling, advanced technical proficiencies in Python, OpenCV, TensorFlow, and Arduino, as well as statistical analysis for forensics, providing a strong foundation for technological innovation in accident reconstruction and biomechanics. He holds a CompTIA A+ certification, enhancing his credibility in performing critical IT support tasks including data recovery.

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