

JOSHUA LEE

Chicago, IL
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SKILLS

Experimental: Computational Fluid Dynamics, DOE & Matrix Analysis, Design Failure Mode & Effects Analysis, Design Verification Plan & Report, Experimental Test Design, Root Cause Analysis

Design Tools: AutoCAD, Solidworks, CREO Parametric, Adobe Acrobat

Languages: Chinese Mandarin (**Fluent**), Taiwanese (**Intermediate**)

WORK EXPERIENCE

Weber Blackstone. – Palatine, IL

April 2021 – Present

Product Development Engineer

- Led end-to-end design and implementation of gas train systems across multiple new product development projects, combining a 5-gate development process with gas train design principles to boost EBITDA by \$30M annually
- Transformed product ideas into manufacturable solutions utilizing computational fluid dynamics and SolidWorks to deliver cost-efficient, robust designs
- Developed comprehensive test templates utilizing a working knowledge of ANSI Z21.58, EN 498, and AS/NZS 5263.0 to expedite global product certification
- Analyzed market trends to inform product development and enhance competitiveness

Underwriters Laboratories – Northbrook, IL

Sep 2019 – April 2021

Engineering Lab Technician

- Improved testing procedures for smoke detectors using expertise with test fixture maintenance and risk management, reducing test cycle times by 5%
- Communicated test results to project engineers with organized data sheets, pairing test observations with root cause analysis to ensure an accurate representation of the detector functionality
- Ensured safe and consistent product function using knowledge of smoke detector standards UL 217 and UL 268

King Shan Wire Co. Ltd.

May 2018 – July 2018

Taipei, Taiwan

Mechanical Engineering Intern

- Optimized CNC machine processes to reduce material waste while manufacturing 800+ steel wire and metal fabricated products daily
- Drafted 50+ product blueprints using Solidworks, enhancing design accuracy and knowledge of design for manufacturing
- Facilitated client communications by translating for American associates

PROJECTS

Weber Q Series

- Spearheaded design initiatives for a robust gas train design that performs consistently in the global market using DOE's & data-based decision making, achieving project completion in 6 months and unlocking ~\$35M in new market revenue

Weber Griddle Series

- Designed and validated gas train for a global griddle platform, achieving industry leading heat distribution and a 4.6/5 average consumer rating across 9 griddle products
- Redesigned gas valve body to minimize horizontal footprint, applying fluid dynamics and valve mechanical expertise to achieve a patented design

LEADERSHIP AND VOLUNTEER EXPERIENCE

Taiwanese American Foundation

July 2015 – Present

Manchester, IN

Program Director

- Led a team of 20+ staff to develop and implement programming for 150+ campers, focusing on identity, communication, ethics, and leadership
- Contributed to a 10% year-over-year increase in camp attendance through strategic planning and engagement initiatives

EDUCATION

University of Iowa

May 2019

Iowa City, IA

Bachelor of Science in Mechanical Engineering; Minor in Business Administration, Math