

Chih-Yi (Jane) Chen

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West Lafayette, IN, 47906

EDUCATION

Purdue University | West Lafayette, IN, USA

Bachelor of Science in Mechanical Engineering

Involvement: Society of Women Engineers Grand Prix Team (Pit Crew 2022)

Expected Graduation: Dec 2022

GPA: 3.93/4.0

PROJECTS

Engineering Projects in Community Service: Children's Educational Demonstrations

Aug 2019 – Present

Design Lead, Energy Team

- Led team of four through specification development and prototyping of an interactive game on renewable energy sources
- Designed minigame pieces for 3D printing with focus on support minimization, ease-of-assembly, and longevity
- Advised peers on additive manufacturing processes and the design, dimensioning, and tolerancing for FDM 3D printing
- Commended by industry design evaluators on form-fit-function and aesthetic design excellence during final design review

Design Lead, Reflex Team

- Led team of three through product design process to finalize prototype and manufacture models of the knee-jerk reflex
- Developed complete user manual using the Microsoft technical writing style guide to accompany product in delivery

Undergraduate Research Fellowship: High Temperature Characterization of Metal Hydrides

Jun 2021 – Aug 2021

- Independently programmed a LabVIEW GUI-based data analysis application for thermal conductivity determination
- Adapted current transient hot-wire techniques for compatibility with electrically conducting samples at up to 1000 °C
- Designed experimental apparatus with special attention to geometric dimensioning and tolerancing (GD&T) concepts

Developing an Affordable Wheelchair Suspension System

Aug 2020 – Dec 2020

- Collaborated remotely with a team located across four countries to develop a novel low-cost in-wheel suspension system
- Conducted engineering modeling of vibration structures to determine optimal spring damping values for prototype
- Leveraged graphic design experience to create effective presentations, including final design renders and animations

WORK EXPERIENCE

Undergraduate Teaching Assistant, Control Systems I | West Lafayette, IN, USA

Aug 2021 – Present

Purdue School of Mechanical Engineering

- Co-led two laboratory sections, provided biweekly course structure feedback for introductory course in control systems
- Debugged LabVIEW and MATLAB programs with students and graded programming assignments on a weekly basis
- Mentored students on topics such as system identification, feedback control, and PID controller design and tuning

Digital Communications Assistant | West Lafayette, IN, USA

Oct 2019 – Present

Purdue Davidson School of Chemical Engineering, Purdue School of Education

- Used Adobe Premiere and Photoshop to create animations and digital assets for official print and web publications
- Assisted faculty with video production needs during COVID-19 to smoothly transition into remote learning
- Coordinated over 20 student ambassadors through photoshoots and weekly content development for social media

Manufacturing Technology Intern | Hsinchu, Taiwan

Jul 2020 – Aug 2020

DuPont de Nemours, Inc.

- Modeled SolidWorks CAD assemblies of up to 500 parts for use in finite element analyses and process visualizations
- Used Excel and Minitab to assist with compiling manufacturing defect rate data and determining significant occurrences
- Reconstructed engineering drawings as part of a company-wide initiative for documentation clarity

SKILLS

Software: SolidWorks, Creo Parametric, Fusion, AutoCAD, LabVIEW, MATLAB, Python, LaTeX, Microsoft Office, Adobe Creative Suite (Photoshop, Premiere Pro, After Effects)

Languages: Bilingual proficiency in English and Mandarin Chinese