JERIANN HSIAO

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EXPERIENCE

Junior Process Engineer
Jan - Apr 2020

OTI Lumionics | OLED Materials Discovery Company

- Analyzed data from profilometry, thickness mapping, and performance tests of **5,000** OLED devices to determine optimal deposition processes and recipes
- Troubleshooted OLED encapsulation process and identified a solution which decreased the occurrence of cathode delamination and shorting to **2%**
- Compiled an **80-page** onboarding document to explain how to operate and maintain an OLED manufacturing line in ISO Class 2 and 3 cleanrooms
- Adapted testing and production plans to meet project deadline **2** weeks ahead of schedule due to the pandemic

Lab and Design Team Lead
Dec 2019 - Present

University of Waterloo iGEM | Synthetic Biology Design Team

- Co-directed and managed a cross-disciplinary competition team composed of **40** members to drive remote project research and design of our novel protein packed column
- Collaborated with math and policy teammates to holistically address the issues of metal waste bio-accumulation and lack of industrial recovery methods

Materials Science RA
Apr - Aug 2019

Voltera | 3D-Printing Circuit Board Company

- Optimized the printing and curing profiles of **20** conductive inks to ensure the user experience of rapid hardware prototyping was smooth and efficient
- Improved efficiency of quality control test suite by **20%** by changing reporting methods and experimental design
- Trained full-time replacement by writing SOPs and teaching key mechanical and materials science concepts

EXTRACURRICULARS

Multi-Hackathon Winner

- Programmed a Slack app for students that generated quizzes and to-do lists using JavaScript and Standard Library
- Designed an educational wildfire safety game for children using the Ubisoft C++ game engine API
- Developed an exercise pose-analysis Amazon Alexa trainer with JavaScript and VoiceFlow
- Interviewed people with dementia to prototype a collaborative, memory-stimulating cooking app

Vimy Foundation Ambassador

- **1 of 20** students selected from across Canada to study WWI in Europe
- Advocated for greater historical education for youth to **500** students, veterans, and community members

Women in STEM Advocate

- Organized a coding conference for **20** students at high school to teach them AWS, SQL, JavaScript, and Twilio
- Advised over **200** high school girls as a girls career conference planner and Waterloo Engineering mentor

EDUCATION

Nanotechnology Engineering

University of Waterloo | Sept 2018 - Apr 2023

- GPA 3.7, Dean's Honour's List (Fall 2018, Winter 2019)