

# 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 using Excel
- Troubleshooted OLED encapsulation process and identified a solution which decreased shorting by **50%**
- Compiled an **80-page** onboarding document to explain how to operate and maintain an OLED manufacturing line in ISO Class 2 and 3 cleanrooms
- Remained flexible and calm and adjusted testing and production plans when province lockdown was announced **48** hours before

### Lab and Design Team Lead Dec 2019 - Present

Waterloo iGEM | Synthetic Biology Design Team

- Co-directed and managed a cross-disciplinary competition team composed of **40** members to drive project research and design
- Collaborated with math and policy teammates to holistically address the issues of metal waste contamination and lack of industrial recovery methods

### Materials Science Research Assistant Apr - Aug 2019

Voltera | 3D-Printing Circuit Board Company

- Built a user workflow for flexible electronic prototyping with the materials, software, and hardware teams
- Optimized the printing and curing profiles of **20** conductive inks to ensure the user experience was smooth and efficient
- Trained full-time replacement by writing SOPs and teaching key mechanical and materials science concepts

## EDUCATION

### Nanotechnology Engineering Sept 2018 - Apr 2023

University of Waterloo | Seeking a 4 or 8-month co-op

- GPA 3.7, Dean's Honour's List (Fall 2018, Winter 2019)
- Hands-on experience with Python, MATLAB, and SolidWorks

## PROJECTS

### Stop Slacking (EngHack)

- ★ Best Automation Hack with UiPath
- Built a Slack app for students using JavaScript to generate quizzes and to-do lists with a PDF-reader bot

### ComPEAR (ElleHacks)

- ★ Best Use of VoiceFlow
- Made Amazon Alexa into a supportive exercise trainer that corrected the user's posture with TensorFlow's PoseNet model

### BakeDem (Hack4Health)

- ★ Best Problem Solution Award
- Interviewed people with dementia to create a collaborative cooking app that captures their favourite recipes and memories

### ICETY (MakeUofT)

- Prototyped a road salt dispenser that released the optimal amount based on computer vision and temperature data
- Programmed a GPS-guide messaging bot that informs users if their route is safe using Twilio and the HERE Maps API

## EXTRACURRICULARS

### Women in STEM Mentor

- Organized a coding conference for **20** students at high school to teach them AWS, SQL, and JavaScript
- Advised over **200** high school girls as a Waterloo Engineering ambassador and Women in Engineering leader

### Vimy Foundation Ambassador

- **1 of 20** Canadian students awarded with a WWI educational program in Europe for demonstrating outstanding civic service
- Advocated for greater historical education for youth to **500** students, veterans, and community members