# Christopher Chan

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## SKILL

Program: AutoCAD, C++, Excel, JMP/JSL, MATLAB, Microsoft Office, OriginLab, Python, R, STATA, and SQL

## WORK EXPERIENCE

**Process Engineer** | Intel, Hillsboro, NY Jun 2022 – Present

- Developed a dashboard that visualized data trends for 19 tools using **PowerBI**, **SQL**, and **Python** to improve data-driven decision making for manufacturing process and developing solutions for unanticipated tool errors
- Pulled data from multiple databases with **SQL**, **JMP**, and **Excel** to ensure that process parameters are within customer and manufacturing specifications
- Developed models to troubleshoot tool issues and designed experiments evaluate the models

**Engineering Project Manager Intern** | Pfizer, Pearl River, NY May 2021 – Apr 2022

- Assisted with site engineering projects, participated in project planning meetings, and managed multiple projects simultaneously
- Communicated with scientists, contractors, and engineers to discuss laboratory needs and define project scope
- Supported development and construction of 25+ lab rooms and office spaces

## CERTIFICATION

Google Data Analytics Oct 2022
IBM Data Science Nov 2022

## PROJECT

**Police Brutality Data Analysis |** The Cooper Union, Manhattan, NY Oct 2021 – Dec 2021

- Lead a group to determine and model the effects of body camera on police brutality in the United States
- Cleaned and filtered 6000+ observations, implemented dummy variables, and developed multiple linear regression models with fixed effects and controls using **Python** and **STATA**
- Delivered statistically significant evidence (95% confidence) that wearing body camera does not affect police brutality and police occurred more frequently on certain racial groups.

**Process Simulation |** The Cooper Union, Manhattan, NY Apr 2021 – May 2021

- Developed a model to predict mol%, molar flow rate, and flash tank conditions of organic solvents with limited experimental data
- Implemented chemical engineering concepts and numerical methods using **Python** libraries
- Reduced the reliance of preforming bench experiments to determine intrinsic chemical properties

**Low-Cost Glucose Level Devices** | The Cooper Union, Manhattan, NY Sep 2018 – Dec 2018

- Worked in a group of six to prototype a cheap (<$0.01) method for glucose level enumeration using test strips and breathalyzer
- Preformed market analysis and defined roadmap for product specifications and outcomes
- Presented findings of the project to the freshmen cohort and Cooper Union faculty

## EDUCATION

**The Cooper Union for the Advancement of Science and Art** Sep 2018 - May 2022
Bachelor of Engineering, Chemical Engineering, GPA: **3.55**

## RESEARCH

**NSF Research Intern |** CUNY Advanced Science Research Center, Manhattan, NY May 2020 – Jul 2020

- Examined structure of MeDPP to increase solar cell efficiency past the Shockley Queisser limit
- Analyzed the UV/Vis spectral data of MeDPP thin films using **OriginLab** and **Excel** to understand aggregate conversion
- Co-authored “Efficient Free Triplet Generation Follows Singlet Fission in Diketopyrrolopyrrole Polymorphs with Goldilocks Coupling”

**Research Intern** | City College of New York, Manhattan, NY Jun 2019 – Apr 2020

- Led a group to synthesized monodisperse and shape-controlled nanoparticles
- Examined DLS and SEM data trends using **OriginLab** to uncover relationships between concentration and particle morphology
- Co-authored “Microfluidic-Supported Synthesis of Anisotropic Polyvinyl Methacrylate Nanoparticles via Interfacial Agents”