Christopher Chan

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WORK EXPERIENCE

Process Engineer | Intel, Hillsboro, OR 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 large databases with **SQL**, **JMP**, and **Python** to ensure that process parameters are within customer and manufacturing specifications
- Developed models to troubleshoot tool issues and designed experiments to evaluate the models
- Collaborated with equipment and engineering teams to resolve production issues and improve process equipment uptime

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

SKILL

Software: AutoCAD, C++, Django, Excel, Github HTML/CSS, JMP, MATLAB, OriginLab, PowerBI, Python, R, STATA, SQL, and Toad

CERTIFICATION

IBM Data Science Nov 2022

- Predicted the success of SpaceX's Falcon 9 first stage landing using machine learning models with an accuracy of 89%
- Conducted data collection through SpaceX API and webscraping, and performed data wrangling, exploratory data analysis, and visualization using Pandas, SQL, Plotly, Folium, and Seaborn
- Found positive correlation between number of flights and success rate, increased success rate over time, ideal payload weight of 2000kg to 6000kg, and favorable performance for Falcon 9 in LEO, ISS, PO, and SSO launches
- Assumed role of a data scientist for a startup company, following data science methodology to report results to stakeholders

Google Data Analytics Oct 2022

- Assumed role of a data analyst to identify trends on how casual riders and annual members use city bikes differently
- Cleaned and filtered 5.8M observations between Oct 2021 and Sep 2022 with R and created visualizations using ggplot to visualize key difference between casual riders and annual members
- Identified temporal and seasonal variations in the usage patterns of casual and member riders, offering potential avenues for converting casual riders to members

PROJECT

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 (Rachford-Rice, Raoult's law, and Van't Hoff) and numerical methods (Gradient descent, Newton's method, and Lagrange polynomial) 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 prototype and project key findings to 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**

PUBLICATION

- Efficient Free Triplet Generation Follows Singlet Fission in Diketopyrrolopyrrole Polymorphs with Goldilocks Coupling
- Microfluidic-supported synthesis of anisotropic polyvinyl methacrylate nanoparticles via interfacial agents