

# Ziyu Han

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Process Improvement | Data Analysis | Project Management

## EDUCATION

### UNIVERSITY OF MICHIGAN

Ann Arbor, MI

*Master of Science in Engineering in Industrial and Operations Engineering*

May 2024

- Cumulative GPA: 3.99/4.00

- Courses: Linear Programming, Data Analytics, Big Data Management, Supply Chain Operations, Project Management

*Bachelor of Science in Engineering in Industrial and Operations Engineering*

May 2023

- Cumulative GPA: 3.84/4.00

- Courses: Data Processing, Quality Engineering, Production and Inventory Control, Simulation Design, Risk Analysis

## TECHNICAL SKILLS

- Functional: Process Engineering, Data Analytics, Database Management, Business Analysis, Project Management
- Languages and Tools: Python, SQL, R, VBA, JavaScript, C#, Tableau, Power BI, Gurobi, Minitab, MS Office Suite

## PROFESSIONAL EXPERIENCE

### Ontario Public Service Ministry of Health

North York, ON

*Software Developer*

September 2024 – Present

- Leveraging C#, JavaScript, Azure DevOps, and ASP.NET Core Blazor and Core MVC design frameworks to develop scalable backend business logic and dynamic front-end web interfaces, driving operational efficiency and user-friendly functionality and reducing data processing time by 80% for the Generic Data Collection Tool (GDCT) applications.
- Collaborating with internal stakeholders to implement automated data collection systems for healthcare financial reports with Excel VBA and Power Automate, optimizing data accessibility and reducing data validation time by 95%.

### BizData Analytics Solutions Inc.

Richmond Hill, ON

*Data Analyst*

May 2024 – Present

- Developed Python and Power BI sales and cost comparison models using ETL processes to evaluate pricing strategies of multiple shampoo product lines, driving data-informed decisions and improving client business KPIs by 110%.
- Led cross-functional teams in designing Python-based regression and seasonal sales forecasts to analyze shampoo performance, informing promotional initiatives and predicting total sales and gross margins with a 99% accuracy rate.

### American Industrial Partners – Canam Steel Corporation

Point of Rocks, MD

*Process Improvement Analyst*

May 2023 – August 2023

- Established the Job Scheduling and Sequencing Optimization Models to streamline the job order scheduling process, yielding a 34% increase in plant efficiency by optimizing tonnage throughput, changeover times, and job lateness on all production lines and contributing to \$4 million in labor savings and \$24 million in additional revenue annually.
- Developed a Python-based ETL scraper to centralize joist data from job order documents and upgraded the Routing Dashboard to outline job order production flows, preventing overload and improving operational efficiency by 94%.
- Employed SQL to query 79,500+ records of production data and performed time studies at bottleneck workstations, reducing process variance by validating completion time estimates and pinpointing lean, waste reduction opportunities.

### Akex Solutions

Richmond Hill, ON

*Business Analyst Intern*

June 2022 – August 2022

- Developed an Excel VBA and Python-based automation process to monitor and update the SKU inventory database and product webpage for 2000+ products daily and extract live product details from three online auction platforms, yielding data-driven purchase requests and requisition processing and improving vendor relationship management.
- Designed an Excel VBA-based, FTP automation system to streamline data integration between multiple procurement platforms and files for real-time performance monitoring, enabling quicker decision making and actionable insights.

## PROJECTS

### Drone Surveillance Optimization Model for Enhanced Wildfire Detection

January 2024 – April 2024

- Utilized Gurobi Python to optimize surveillance paths and recharging schedules of sensor-equipped drones in Arizona.
- Maximized detection efficiency by prioritizing factors: wildfire risk, area coverage, travel distance, and recharge cost.

### Planet Detroit Interactive Environmental Dashboard

January 2024 – April 2024

- Spearheaded the development of the Planet Detroit Dashboard, presenting environmental data for Michigan residents.
- Employed Python and Tableau to query and visualize climate shift indices of daily low-high temperatures in Michigan.

### Predictive Analysis of Aircraft Delays through Regression Modeling

September 2023 – December 2023

- Applied OLS, AIC/BIC, and Shrinkage Methods statistical techniques to predict delay times for U.S. domestic flights.
- Evaluated 77,000+ aircraft delays using R and identified the PCA model as the optimal predictor of flight delay times.