Ziyu Han

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Software Development | Data Analysis | Process Improvement

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

Honors Bachelor of Science in Engineering in Industrial and Operations Engineering *May 2023*

- Cumulative GPA: 3.84/4.00

TECHNICAL SKILLS

- Functional: Full Stack Development, Data Analytics, Database Management, Process Engineering, Business Analysis
- Languages and Tools: Python, R, JavaScript, VBA, C#, HTML5/CSS, MERN, SQL, SAS, Tableau, Power BI, Gurobi

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 for the Generic Data Collection Tool (GDCT) application, driving operational efficiency and user-friendly functionality and reducing data processing time by 80%.
- Implementing automated data management systems for healthcare financial reports using VBA and Power Automate, enhancing data accessibility and reducing validation time by 95% through collaboration with internal stakeholders.

BizData Analytics Solutions Inc. **Richmond Hill, ON**

Data Analyst *May 2024 – Present*

- Developed Python and Power BI sales and cost comparison models by leveraging ETL processes to evaluate pricing strategies of multiple shampoo product lines, driving data-informed decisions and improving business KPIs by 110%.
- Built Python regression and seasonal sales forecasting models to analyze shampoo product performance, achieving a 99% accuracy rate in predicting sales and gross margins and informing promotional strategies and inventory planning.
- Optimized fleet maintenance operations for 5,500+ vehicles in Toronto by identifying cost-effective vehicles across light, medium, and heavy-duty groups, reducing operating costs by 46% and delivering actionable recommendations.
- Analyzed 73,600+ credit risk records using Python, SQL, and SAS to establish risk mitigation strategies for Verizon's postpaid mobile applications, minimizing credit score risk and raising approved accounts and activation rates by 68%.
- Led cross-functional teams in designing interactive dashboards and reports using Tableau and Power BI, enabling stakeholders to visualize key performance metrics and identifying automation opportunities to achieve business goals.

Canam Steel Corporation **Point of Rocks, MD**

Process Improvement Analyst *May 2023 – August 2023*

- Established job scheduling and sequencing optimization models to streamline the steel joist 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.
- Implemented Python-based ETL scrapers 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 Excel VBA and Python-based automation processes to monitor and update the SKU inventory database and product webpage for 2,000+ 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.
- Formulated Excel VBA-based FTP automation pipelines to aggregate and process data from multiple procurement databases and sources, enabling real-time performance monitoring, efficient decision-making, and actionable insights.

InfernoGuard LLC **Charlotte, NC**

Optimization and Resource Management Specialist *June 2021 – August 2021*

- Utilized Python to optimize the allocation of forest fire sensors across 5,600+ acres of Jenner Headlands and 100,000+ arcs of Collins Company natural preserves, enhancing early detection efficiency and response time to wildfire hazards.
- Developed six customized Python-based sensor allocation models tailored for various customer markets and demands, incorporating key performance metrics, such as land coverage preference, forest fire risk index, and budget constraints.