

Yunmei Zheng

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WORK EXPERIENCE

Electrical Engineering Intern

June - August 2022

Syska Hennessy Group

Manhattan, NY

- Aggregated and analyzed airport design data to identify trends and insights; created 20+ Excel charts and PowerPoint visualizations accompanied by 100+ formulas to communicate findings effectively
- Collaborated closely with interdisciplinary engineering teams and external contractors across 5+ projects, ensuring smooth coordination and maintaining a 100% on-time project delivery
- Managed data entry for electrical equipment using Excel, oversaw the input and maintenance of a database of 80+ assets ensuring accurate and organized documentation, and streamlined data retrieval
- Drafted 2 electrical schematics and 10 single-line diagrams with AutoCAD to optimize power distribution for high-rise residential and commercial buildings

EDUCATION

COOP | Data Analytics Apprenticeship

August 2023 - Present

- Participating in a 16-week data analysis apprenticeship with a focus on mastering SQL, Python, and Tableau for data processing, visualization, and storytelling, while also committing to ongoing professional development

University at Buffalo | Bachelor of Science, Engineering Science

May 2023

- Courses: Applied Probability and Statistics, Introduction To Data Science, Statistics for Engineers, Engineering Computations, Analytics and Computing, Machine Learning and Society

TECHNICAL SKILLS & CERTIFICATION

Languages: R | MATLAB | Python | SQL | HTML | CSS | JavaScript

Certification: Google Analytics Professional (Coursera) | Oracle Cloud Data Management (Oracle)

PROJECTS

Solving Literary Puzzle | Python | github.com/yun-mei/Cain_Jaw

May 2023- May 2023

- Employed NLP techniques including tokenization and POS tagging to analyze 100 unordered pages and uncover the 'Cain's Jawbone' puzzle. Identified linguistic patterns and word associations to determine logical page order
- Leveraged part-of-speech tagging, named entity recognition, and sentiment analysis to gain insights into characters, themes, and events. Identified key entities with 82% accuracy, resulting in a coherent narrative structure
- Analyzed word associations across pages to unravel the puzzle's complexities and create a structured interpretation of the content

Flow Layout | Excel, Python | github.io/assets/pdf/flow.pdf

March - May 2023

- Employed optimization algorithms to creatively problem-solve and optimize department configurations, resulting in a 3% reduction in total production costs and a 5% improvement in workflow efficiency
- Utilized the Direct Clustering Algorithm and CRAFT to strategically optimize the layout of 11 different departments, reducing transit times by 8% and improving resource allocation and operational effectiveness
- Created a Mixed Integer Linear Programming model to minimize total transportation costs and enhance workflow efficiency, enabling 15% more cost-efficient logistics and smoother operational processes

Air Quality in NYC | R, RShiny | github.com/yun-mei/NYC-Air_demo

August - December 2022

- Developed 15 interactive charts and graphs using ggplot2 to enrich data visualization with RShiny, enhancing the clarity of findings to effectively communicate insights and trends
- Formulated regression models as well as clustering models to predict pollution levels across NYC neighborhoods, providing valuable insights into environmental trends and making predictions for 50+ neighborhoods
- Improved model hyperparameters, resulting in a significant increase in prediction accuracy from 40% to 70%, strengthening the reliability of pollution forecasts across neighborhoods