Claire Ko

Vancouver, B.C. | 236-992-5696 | lko16@my.bcit.ca | LinkedIn: https://www.linkedin.com/in/claireko9/
Personal Website: https://www.caireko.com/

Summary

Aspiring Data Analyst with over 6 years of engineering experience and a strong foundation in Computer Science and engineering principles. Skilled in data cleaning, exploratory analysis, and data visualization, with hands-on proficiency in object-oriented programming like Python, SQL, Microsoft Excel, Tableau, Power BI, and relational databases. Proven problem-solving skills and communication skills to collaborate across cross-functional teams. Currently pursuing a bachelor's degree in computer science with a willingness to learn new techniques.

Technical Skills

Languages	Databases	Data Handling	Tools	Analysis
Python	MySQL	Tableau	GitHub/Git	Statistics
R	PostgreSQL	Power BI	Jira	Data Wrangling
C/C#	MongoDB	Microsoft Excel	Confluence	Data Mining

Personal Projects

Data Analyst | Weather Predict Web App   Apr 2025

- Developed a real-time data pipeline to collect and store weather data using Python, OpenWeather API, and Edge DB; applied logistic regression with Scikit-Learn to forecast rainfall probability and visualized data using Plotly to support data-driven environmental monitoring

Data Analyst | New Project Placeholder   Jun 2025

- Developed an edge-computing weather prediction system using Python, Fast API, Edge DB, and Open Weather API, integrating real-time data collection, storage, and a machine learning model with a logistic regression using Scikit-Learn for rainfall probability forecasting and visualized by Plotly

Professional Experience

Intermediate Quality Assurance Specialist   Oct 2023 - May 2024
Quality Assurance Specialist   Jun 2021 - Feb 2023
Ensemble System Inc., Vancouver, Canada

- Supported user acceptance testing in a detail-oriented manner and analyzed QA test data to uncover defect patterns and trends, which reduced defect rates in agile, software development lifecycle

- Developed reusable test cases linked to key quality metrics, enabling systematic tracking of test coverage and defect rates

Process Integration Engineer   2010 - 2017
Taiwan Semiconductor Manufacturing Company Limited (TSMC), Hsinchu, Taiwan

- Analyzed low-yield issues (~20%) across multiple manufacturing fabs (Taiwan/China) using EDA and inline process data analysis in MS Excel (Pivot Table/Chart/Advanced Formula), resulting in 18% yield improvement and earned formal customer recognition

- Facilitated interdepartmental and customer-facing meetings to present findings and align technical strategies to production and new generation technology development

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Academic Projects

YouTube Trending Video Analysis   Jun 2024

- Analyzed international YouTube trending video statistics using Python (Pandas, NumPy), R, and MS Excel to uncover insights on viewer behavior, content popularity

- Visualized key trends using Tableau and MS Excel, including content category performance, likes-to-view ratios, and optimal viewing times, providing actionable insights for digital content strategy.

- Performed statistical analysis to compare engagement metrics across categories, and constructed 95% confidence intervals to validate hypotheses regarding viewer interactions and content types

World Happiness Analysis   Sep 2024

- Performed exploratory data analysis and linear regression using Python and MS Excel on global happiness data to identify GDP, social support, and healthy life expectancy as the top three factors most correlated with happiness scores.

- Built multiple classification models with R—logistic regression (71% accuracy), neural network (81% accuracy), decision tree, and kNN (up to 64% accuracy)—to predict country happiness categories and life expectancy levels using normalized multi-factor datasets.

Education

British Columbia Institute of Technology, Burnaby, BC   Estimated Graduation Dec 2027
Bachelor of Applied Computer Science (Database option), Degree (92% GPA)
Diploma of Computer Information Technology (With Distinction)

Chung Yuan Christian University, Taoyuan, Taiwan   Sep 2004 – Jun 2010
Master of Science in Applied Physics, Degree
Bachelor of Science in Physics, Degree