# Alexis Ng

alexisng81198@gmail.com
(416) 918-3669
linkedin.com/in/alexisng6
github.com/alexiswhng
alexiswhng.github.io

## Relevant Experience

**Technology Research Analyst** Mar '22 - Present
**Software Developer** May '21 – Mar '22
BMO Financial Group – Toronto, ON

As a member of the Technology Research and Innovation team, my role is responsible for conducting research and monitoring emerging technologies, which includes technological capabilities, industry applications, market trends, and the relevant landscape. The goal is to generate valuable insights for the bank and contribute to accelerating the pace of innovation.

Key Contributions

- Developed and implemented a Python-based web scraping script to track and condense key technology trends, improving the efficiency of the previous daily news monitoring search by 96%
- Led a development project utilizing generative AI and prompt engineering to create a personalized news aggregator Flask website
- Composed weekly news briefs and bi-monthly newsletters, providing succinct summaries and in-depth analyses of the latest developments in the technology landscape. The integration of the web scraping script significantly streamlined this process by 80%
- Contributed to a virtual branch proof-of-concept (PoC), leveraging 5G, AR/VR, and metaverse concepts to explore groundbreaking technologies within the financial sector
- Collaborated on a Central Bank Digital Currency PoC, working with a cross-functional team to develop a prototype mobile app that simulated digital currency transaction at the bank
- Teamed with cross-functional teams including data analysts and data scientists to execute several automation tasks, including the development of employee onboarding personas, customer product selection, and payment optimization
- Established and maintained a comprehensive financial report dashboard using Python and Power BI, providing comparative insights into the performance of Canada's top five banks on a quarterly basis

**Provincial Highways Management Engineering Associate** May '19 – Aug '20
Ontario Ministry of Transportation – Toronto, ON

As a member of the Electrical Engineering team, I actively contributed to electrical design projects and played a role in the development of policies and standards for highway light systems, traffic signal systems, and other transportation-related electrical infrastructure.

Key Contributions:

- Identified challenges, generated alternative solutions, and prepared comprehensive reports outlining the evaluation and recommendations for solutions.
- Utilized AutoCAD and ArcGIS to draft electrical layouts, wiring diagrams, and conducted lighting calculations for traffic and lighting systems on various provincial highways.

## Skills

### Programming Languages

Python, SQL (Postgres, MySQL), HTML, CSS, JavaScript, MATLAB

### Libraries & Frameworks

Pandas, NumPy, Matplotlib, Beautiful Soup, Feedparser, Seaborn, Scikit-learn, Tensorflow, PyTorch, Keras, NLTK, Flask, Streamlit

### Tools & Platforms

Microsoft Suite, SQLite, PostgreSQL, MySQL, AWS (S3, Lambda, Kendra, Quicksight, Athena), GitHub, AutoCAD, ArcGIS

### Hard Skills & Techniques

Exploratory data analysis, preprocessing, visualization, pipelines, ETL, building models

## Education

### Bachelor of Engineering, Electrical Engineering (Co-op)

McMaster University
Hamilton, ON
Sept 2016 – Apr 2021

## Certificates

### AWS Certified Cloud Practitioner

Issued by Amazon Web Services