TONY KWOK

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EDUCATION

University of Waterloo, Bachelor of Computing and Financial Management   📅 Sep 2016 – June 2022

SKILLS

Programming: JavaScript/TypeScript, Python, C/C++, R, HTML/CSS, SQL, Node.js, React, Svelte, Shell/Bash, Java
Technologies: Pandas, Git, Docker, MySQL, MaterialUI, AWS, GCP, Git, Power BI, Power Apps, Power Automate, Flask, Jenkins

EXPERIENCE

Software (Innovation Catalyst) Intern | NPX | *Power BI, Power Apps, Power Automate* 📍 Remote 📅 Jan 2021 – Apr 2021
- Introduced a database schema that resolved and prevented data conflicts, **improving development efficiency by 25%** and reducing time spent on bug fixing.
- Automated data reporting through Power BI and Power Automate, completely **eliminating manual reporting time and ensuring up-to-date insights**.
- Developed UI standards and a component library in Power Apps, **enhancing app development efficiency by 20%**.

Full Stack Developer Intern | 360 Insights | *React, Node.js, Jenkins*   📍 Whitby, ON 📅 Jan 2020 – Apr 2020
- Developed a health-check API for testing and displaying the availability of 10+ internal services using Node.js, **saving developer time on debugging and reducing potential service downtime.**
- Built reusable UI components using React.js for client sales portals, **decreasing project maintenance by 20%**.

Data Specialist Intern | Quarter4 | *Python, MySQL, Pandas, Numpy*   📍 Guelph, ON 📅 May 2019 – Aug 2019
- Developed a data collection, cleaning, and preprocessing script with Pandas and MySQL, **improving the accuracy of NBA game prediction models by 50%** and contributing to a **successful MVP launch**.
- Created a Markov chain to translate raw data into descriptive text, enhancing user understanding of NBA metrics.

Business Application Developer Intern | Marsh | *VBA, MS Excel, MS Access*   📍 Toronto, ON 📅 Aug 2018 – Dec 2018
- Designed and developed a data reporting app using SQL, VBA, and MS Access, automating the reporting process, **saving 300 hours of work annually**, and facilitating the work turnover process.

PROJECTS

Portfolio Website tonykwok.info ⭕ 🔗 | *Javascript, Svelte, GCP*   📅 Jan 2022
- Designed parallax layers, implemented effects with Svelte.js, and hosted it on Google Cloud Platform.
- **Optimized website performance** by minifying code and reducing image weight, leading to an **80% reduction in loading times** and an improved user experience.

Pneumonia Detector ⭕ 🔗 | *Python, Fast.ai, Gradio*   📅 July 2023
- Developed a Deep Learning model using FastAI to **diagnose pneumonia with a 98.5% accuracy** rate from chest X-ray images.

SoulDog ⭕ | *Javascript, SQL, Knex.js*   📅 June 2021
- Developed a lifestyle preference-based dog-owner matching platform, **recognized as the top project** for the database management class, setting an example for future projects.

Air Passengers Time Series Forecast ⭕ | *Python, Scikit-Learn, Matplotlib, Pandas*   📅 Aug 2021
- Forecasted the number of air passengers using time series data. Used SARIMA and Holt-Winters Exponential Smoothing models to **predict the number of passengers for the next 36 months**.

Wumpus World ⭕ | *Python*   📅 Aug 2021
- Built a reinforcement machine learning model to **visualize runtime differences** among various reinforcement learning techniques (Q-learning, SARSA), improving understanding and application of machine learning principles.

ACHIEVEMENTS / EXTRACURRICULARS / INTERESTS

Hack the North: Winner (VoiceFlow API Category), Waterloo Microsoft Imagine: 4th Place, Arts Student Union: VP Finance, Track and Field: Middle distance athlete, placing top 8 in Nationals (USports), Cross Country, Generative AI, Cliodynamics