

TONY KWOK

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EDUCATION

University of Waterloo, Bachelor of Computing and Financial Management

Certificates: Coursera - HTML,CSS,and Javascript for Web Developers, Kaggle - Intermediate Machine Learning

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, Jest

EXPERIENCE

Software Engineering Virtual Experience Program | J.P. Morgan | React, Typescript, Python 📍 Remote 📅 Oct 2023

- Improved data visualization by implementing RESTful APIs to display historical stock prices and comparative ratio analysis to save traders >100 hours

Full Stack Developer Intern | 360 Insights | React, Node.js, Jenkins, Jest 📍 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 \$1500 annually per team**
- Built reusable UI components using React.js for client sales portals, **decreasing project maintenance by 20%**
- Enhanced the codebase by resolving 10 critical bugs, implemented comprehensive test suites using Jest, and contributed to the CI/CD pipeline, accelerating deployment processes and **boosting overall application performance by 10%**

Software Engineering Virtual Experience Program | Goldman Sachs | Hashcat 📍 Remote 📅 Oct 2023

- Leveraged Hashcat to identify vulnerabilities inherent in the outdated hashing algorithm, and proposed measures to **bolster password security by 10,000x**

Software (Innovation Catalyst) Intern | NPX | SQL, Power BI, Power Apps 📍 Remote 📅 Jan 2021 – Apr 2021

- Automated data reporting and created a unified reporting system through SQL and Power Apps to **reduce cost by >\$1M**
- Introduced a database schema that resolved and prevented data conflicts, **improving development efficiency by 25%** by reducing time spent on bug fixing and minimizing joins
- Developed UI standards and a component library in Power Apps, **enhancing app development efficiency by 20%**

Data Specialist Intern | Quarter4 | Python, MySQL, Pandas, Numpy 📍 Guelph, ON 📅 May 2019 – Aug 2019

- Developed a data collection, cleaning, and preprocessing API with Pandas and MySQL which lead to a model accuracy of >85%, contributing to a **successful MVP launch and \$160k funding for pre-seed**
- 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, **saving \$10,000 annually** through reducing data reporting time by 300 hours

PROJECTS

Portfolio Website tonykwok.info 🌐 | Javascript, Svelte, GCP 📅 Jan 2022

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 dog-owner matching platform, **recognized as the top project** for the database management class

Chess 🌐 | C++ 📅 Aug 2020

- Chess game with UI and 4 levels of CPUs, one of them Stockfish. Also allows human to human games

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, Clidynamics