Billy Fung

CONTACT billy@billyfung.com +64 0204 130 7712

EDUCATION **University of British Columbia**, Vancouver, BC, Canada **2015**

B.A.Sc. Engineering Physics, Mechatronics specialization

SKILLS

MLOps, Data driven backend development, `Golang`, `Python`, `R`, `Javascript`, SQL, AWS, GCP

EXPERIENCE **LocalCover**, Auckland, New Zealand.

Backend Software Engineer **April 2020 to Present**

- training transformer based machine learning models to classify products based on text input
- researching state of the art text and image classification models
- cleaning and iterating over data to maintain highest data quality
- developing continuous delivery and automation pipelines for MLOps best practices
- experimentation of identifying product brands based on images and text
- serving machine learning model predictions APIs and building React frontend UI
- building and supporting backend APIs in Golang, hosted on GCP

emhTrade, Auckland, New Zealand.

Lead Software Engineer **March 2016 to April 2020**

- designed and developed a modular billing system to support complex electricity tariffs
- worked on cost reflective tariff design, used for optimising transmission pricing within the grid
- created supporting backend microservices for mobile app, including backend REST and GraphQL APIs
- developing and supporting Python services for smart grid operation, with peer to peer power sharing
- building machine learning models to forecast electricity demand, and price
- experimentation of economic market design applied to localised smart grids
- lead experimentation and analysis of load shifting of electricity demand response
- managing and maintaining continuous integration and deployment of applications to cloud servers
- automating internal trading tools to visualise risk and seek out arbitrage

DVe Technologies, Vancouver, Canada.

Lead Engineer **December 2014 to November 2015**

- created and developed the initial hardware prototype for helmet mounted signalling system
- developed and tested electrical circuits within hardware device
- aided in refining software algorithms to fine tune head tilt gesture
- used Solidworks to design the mechanical enclosure for 3d printing and for plastic injection mold
- communicated with manufacturers and investors in attempts to bring product to market

Blackberry Limited, Ontario, Canada.

Reliability Systems Development Intern **May 2011 to August 2012**

- developed and maintained systems for testing handheld devices involving highly accelerated lifecycle testing and failure mode analysis
- debugged board level electrical errors along with identifying hardware troubleshooting
- qualified supplier manufacturing sites through statistical analysis

Projects

- coffee information website
- automatic wireless irrigation system based on moisture sensor readings
- podcast hosting website
- autonomous tape following race car