Billy Fung

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

                   B.A.Sc. Engineering Physics, Mechatronics specialization

SKILLS

                   Data driven backend engineering, `Python`, `R`, `Javascript`, PostgreSQL, AWS, GCP

EXPERIENCE   **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 sig-
                     nalling 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 troubleshoot-
                     ing
                   · 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