

Connor Robert McDowall

Bachelor of Commerce (Finance) / Bachelor of Engineering (Honours, Engineering Science)
University of Auckland (Feb 2015 – Nov 2021) | **GPA 8.1**,
Hutt International Boys' School | NCEA Levels 1, 2 and 3 with Excellence
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Citizenship | Canadian and New Zealand

Employment history

ExxonMobil Australia | Engineering Vacation Student – Upstream Commercial (2019-20)

- Built an Excel-based optimisation model to forecast the production capabilities of ExxonMobil's ~\$3B (AUD) share of the Gippsland Basin Joint Venture assets. The model analyses the quantities of gas available for sale, informs ExxonMobil's Victorian gas marketing strategy, and considers separate gas balancing agreements
- Built an Excel-based 3rd party storage optimisation model to optimise ExxonMobil's sales strategy from an onshore storage facility. The model compares different sales strategies, informs how to maximise gas revenue, and ensures ExxonMobil meet their gas storage contractual obligations
- Discussed negotiations between ExxonMobil and Governments, the drilling of new wells in the Gippsland Basin, and competitive pricing strategies in weekly team meetings
- Completed Heli-Sea, Onshore, Offshore, and Fire Fighting training

Deloitte New Zealand | Management Consulting Analyst (2018-19)

- Conducted data analysis for the development of a new operating model for a public sector client. The new model was to improve education equity across New Zealand
- Built an Excel-based monitoring tool for a public sector client
- Built financial models to assess ROI on investment options for a public sector client

Deloitte New Zealand | Corporate Finance Analyst (2017-18)

- Supported and prepared two proposals for work related to valuing the impact domestic and international education has on the New Zealand economy
- Built an operating cost model to forecast construction costs for community housing providers. This model was to inform the construction of community housing
- Conducted due diligence to assess the financial risk of a business for a public sector client

Fletcher Building | Engineering Assistant (2016-17)

- Managed contracting teams and conducted firestopping, commissioning and quality control activities for the \$1.4B (NZD) Waterview Connection project, contributing to reducing traffic congestion

University of Auckland | Resident Advisor (2016)

- Managed 40 first year undergraduate students. I organised and facilitated educational events, community-building activities, and academic tutorials

Leadership & service

- **University of Auckland Investment Club Co-President (2020)** (co-lead a team of 18 who run investing and finance related events for 400 general members. I manage internal and external relationships while overseeing four competitions, a weekly bulletin, the Women Engagement Initiative, several education events, and the Investment Committee who manage a \$20,000 fund on behalf of the club)
- **University of Auckland Dean's Executive Committee (2018 – 19)** (represented **4000 students**, worked with executive staff to set the strategic direction and improve equity for the Faculty of Engineering)
- **University of Auckland Dean's Leadership Programme (2017)** (selected as one of 10 Part II undergraduate engineering students for leadership training and mentorship. We had leadership sessions with business leaders, academic staff, and the Vice Chancellor)
- **Mental Health Foundation Fundraiser (2019)** (raised \$1600 for the Mental Health Foundation of New Zealand)

Academic achievements & awards

- **University of Auckland EY Business Student of the Year – Finalist (2020)** (recognised as one of the **top seven** University of Auckland Undergraduate Business School Students who display excellence in academic performance, communication skills, community service, extra-curricular activities, and knowledge of world issues)
- **Chulalongkorn International Business Case Competition (2019)** (placed 3rd; competed against 20 teams worldwide to develop and present strategies for Line Mobile and Sea Thailand)
- **INFINZ Scholarship (2019)** (selected as one of twelve students across New Zealand to attend the INFINZ Conference and meet the INFINZ board)
- **First in Course Award for Finance 781 (2019) (top student)**; Finance 781: Financial Machine Learning covered several machine learning algorithms and their use in financial contexts)
- **Citi Global Markets Challenge (2019)** (placed 3rd; competed against 500 teams across Australia and NZ to invest \$500m across four asset classes, building a portfolio to outperform the benchmark fund)
- **CFA Research Challenge (2018)** (placed 3rd; represented the University of Auckland, competed against eight teams to research the NZX listed Comvita, forecast the share price, and present a recommendation)

Projects & skills

- **Engineering Science (Honours) (2016 – 20)** (use mathematical models and advanced computing to simulate real-world processes, systems and solutions to solve the complex problems posed by industry and society. The specialisation builds skills in data science, artificial intelligence, linear and non-linear programming, optimisation, computer science, continuum mechanics, statistics and mathematics. Solve problems related to technology, energy, finance, healthcare, telecommunications, transport, mining and infrastructure)
- **Global Carbon Pricing Optimisation Model (2020)** (building a model to inform carbon pricing initiatives across user-defined geographies. The model intends to inform policy and investment in sustainable technology. The model is built using Python, Excel, GNU Mathprog and IBM Watson Machine Learning services)
- **Prototype Wind Turbine (2018)** (designed, built, and tested a wind turbine to operate at 140 rpm. Blade profile design was simulated using MATLAB and Xfoil to optimise profile aerodynamics. Optimal profiles were modelled in Dassault Systemes Solidworks and laser cut from sheets of Perspex)
- **Transshipment Network Model (2018)** (built a linear optimisation model using AMPL to model fruit produce flows from producers to packhouses to markets. The model minimises packaging and transportation costs across 10 different demand forecasts)
- **Personal Financial Modelling Tool (2019)** (built a financial modelling tool to inform investments. The model includes several valuation models, a leveraged buyout model, and custom-built macros to create presentations and import financial data using Python APIs)
- **Programming** (proficient in Python, MATLAB, VBA, AMPL, Git and [GitHub](#))
- **Mathematical Modelling** (modelled the qualitative behaviour of Ordinary Differential Equation (ODE) systems and used computational techniques to model solid mechanisms and fluid dynamics)

Extra-curriculars

- **Ironman Triathlon (2019)** (completed the Tauranga Half, Ironman 70.3 Sunshine Coast, and Ironman New Zealand. In Ironman New Zealand, I was one of 30 in 18-24 age group to complete 4km swim, 180km bike and 42km run)
- **University of Auckland Case Programme (2017-20)** (represent the University of Auckland at Regional, National, and International Case Competitions. I prepare analysis on a case company's problems and propose solutions. I have competed in Christchurch (New Zealand), Sydney (Australia), and Koh Samui (Thailand))
- **University of Auckland Investment Club Investment Committee Senior Analyst (2019)** (pitched stocks, valued equities and engaged in weekly discussions about companies, industries, and markets. I prepared investment analysis on, and invested in, Spark New Zealand (NZE: SPK) and Sea Limited (NYSE: SE))