

# CURRICULUM VITAE

**Max Biggs**

January 2021

## EDUCATION

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2014 - 2019 **Massachusetts Institute of Technology, Ph.D.**  
Operations Research Center  
Advisor: Prof. Georgia Perakis

2010 - 2013 **University of Auckland, B.Eng.(hons)**  
First class honors  
Major: Engineering Science

## HONORS AND AWARDS

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2019 **MSOM Practice Based Research Finalist**  
Awarded for paper entitled: "Pricing for heterogenous products: analytics for ticket reselling"

2018 **INFORMS Data Science Best Paper Award**  
1st place, awarded for paper entitled: "Optimization objective functions determined from random forests"

2017 **Service Science Best Cluster Award Finalist**  
Awarded for paper entitled: "A ranking algorithm for tramp shipping in the spot market"

2014 **William Georgetti Fellowship**  
Awarded by Governor General of New Zealand

2010 **Bronze medalist International Biology Olympiad**

2009 **Dux and Deputy Head Boy**  
Scots College, Wellington, New Zealand

## EMPLOYMENT

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2020 **Assistant Professor of Business Administration**  
Quantitative analysis group  
Darden School of Business

- 2019/20 **Post-Doctoral Researcher, IBM Watson**  
Part of AI for travel industry team, developed algorithms for interpretable data driven pricing using machine learning.
- 2019 **Adjunct Professor Darden School of Business, University of Virginia**  
Taught 2 sections of core Decision Analysis course
- 2016 **Research Intern, Amazon**  
Formulating and coding a large scale advertising optimization problem to solve within tight time frame
- 2015/16 **Planning Consultant, Thenamaris Shipping Company**  
Working on algorithms to design ship routes based on dynamic availability of cargoes
- 2014 **Data Scientist, Harmonic Analytics Limited**  
Provided consulting services to help clients create value from their data using mathematical and statistical models.

## **MANUSCRIPTS IN PREPARATION/SUBMITTED FOR REVIEW** \_\_\_\_\_

Gao, R. Biggs, M., Sun, W., Han, L., Counterfactual self-training (under review), 2020.

Biggs, M., Ettl, M., Sun, W. Knowledge distillation for revenue management: interpretable personalized pricing (under review), 2020.

Biggs, M., Prescriptive analytics for operations problems: a tree ensemble approach. PhD thesis. 2019.

Biggs, M., Perakis, G. Dynamic routing with tree-based value approximations (working paper), 2019.

Alley, M., Biggs, M., Hariss, R., Hermann, C., Li, M., Perakis, G., Pricing for heterogeneous products: analytics for ticket reselling (major revision MSOM). 2018.

Biggs, M., Hariss, R. Optimization objective functions determined from random forests (major revision POMS). 2017

Biggs, M., Perakis, G. A ranking algorithm for tramp shipping in the spot market (R & R Management Science). 2017.

## **TEACHING EXPERIENCE** \_\_\_\_\_

### ***ADJUNCT PROFESSOR (DARDEN SCHOOL OF BUSINESS)***

Spring 2020	<b>Decision Analysis 2 (2 sections)</b>
Fall 2019	<b>Decision Analysis 1 (2 sections)</b>

***TEACHING ASSISTANTSHIPS (MIT)***

Summer 2017

**Intro to Operations Management (executive MBA)**

Fall 2016 -

**Data Models and Decisions (executive MBA)**