Thomas Waring

79 Beauchamp St, Preston
thomas.waring99@gmail.com
thomaskwaring.github.io
0423 913 933

EDUCATION

- **University of Melbourne** — Melbourne, Victoria
  Master of Science — 2020 – 2021
  - Majored in **Mathematics and Statistics**, specialising in **Pure Mathematics**.
  - Final weighted average mark of **96.4%**: graduated December 2021 and was awarded the **Faculty of Science Graduate Medal** for the highest weighted average mark.
  - Thesis on **Geometric Perspectives on Program Synthesis and Semantics**.

- **University of Melbourne** — Melbourne, Victoria
  Bachelor of Science — 2017 – 2019
  - Majoring in **Mathematics and Statistics**, specialising in **Pure Mathematics**.
  - Graduated December 2019 with a weighted average mark of **89.76%**.

- **Christ Church Grammar School** — Perth, Western Australia
  High School — 2009 – 2016
  - Australian Tertiary Admissions Ranking (ATAR) of **99.90**.
  - Awarded a General Exhibition.
  - Scored in the **100**th percentile on the Undergraduate Medical Admissions Test (UMAT).

EMPLOYMENT AND VOLUNTEERING HISTORY

- **Research Assistant** — 2022 –
  Melbourne Centre for Data Science
  - Working with Dr. Christopher Baker, I have conducted research in mathematical ecology, epidemiology and biosecurity.
  - I am listed as an author on several papers currently under review, including as first author for work applying partially-observed Markov decision problem techniques to conservation ecology.

- **Tutor** — 2019 –
  University of Melbourne, Queen's College and Little Hall
  - I tutor second-year mathematics at the University, and physics and maths up to a third-year undergraduate level for the colleges.
  - This requires comprehensive knowledge of the subject matter, as well as adaptable communication skills appropriate to the wide range of students.
  - At Queen's, I was awarded (by election) tutor of the semester for August - November 2019.

- **Developer and "Creator"** — 2019
  Synergetics Consulting Engineers
  - Funded by a larger engineering company, a small group of peers and I acted as an incubator team for a data-driven app.
  - This has involved coding in Python, as well as higher level management and strategic-direction choices.

SKILLS

- Coding experience in Python, C and Haskell.

- First aid: cardiopulmonary resuscitation, basic emergency life support, first aid.

- Standard mental-health first aid.

Achievements

- 2022: M.L. Urquhart Graduate Prize

- 2021: Wyselaskie Scholarship in Mathematics

- 2020: Masters Exceptional Talent Scholarship in the School of Mathematics and Statistics

- 2020: Mathematics and Statistics Vacation Scholarship

- 2019: Tweddle Scholarship (Queens College)

- 2017: Fellows Scholarship for Academic Excellence for 2018

- 2017: Chancellor's Scholarship at the University of Melbourne

- 2016: Represented Australia at the UNESCO-run International Physics Olympiad (Bronze Award)

- 2016: Asian Physics Olympiad (Honourable Mention)

- 2015: Gold Medals in the Physics and Chemistry Olympiad Qualifying Exams

References

- **Dr. Chris Baker**
  Research Fellow   Melbourne Centre for Data Science
  - **Mobile:** 0403 612 071
  - **Email:** cbaker1@unimelb.edu.au
  - **Address:** 700 Swanston Street, Melbourne, 3003

- **Dr. Dave Collins**
  Director and Principal Engineer   Synergetics Pty Ltd
  - **Mobile:** 0438 394 191
  - **Email:** davec@synergetics.com.au
  - **Address:** 490 Spencer Street, Melbourne, 3003

- **Dr. Sally Dalton-Brown**
  Dean of Academic Programs   Little Hall
  - **Mobile:** 0468 814 471
  - **Email:** sdalt@unimelb.edu.au

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ACADEMIC TRANSCRIPT

Completion and Conferral Summary:
Bachelor of Science
    With majors in: Mathematics and Statistics
    Completed 4 Dec 2019. Conferred 19 Dec 2019.
Master of Science (Mathematics and Statistics) (with Distinction)
    Completed 2 Dec 2021. Conferred 8 Dec 2021.

Bachelor of Science

Year	Code	Title	Points	Mark	Grade
2017	AHIS10001	Art History: Theory and Controversy	12.50	081	H1
	CHEM10003	Chemistry 1	12.50	097	H1
	MAST10008	Accelerated Mathematics 1	12.50	092	H1
	PSYC10003	Mind, Brain & Behaviour 1	12.50	099	H1
	MAST10009	Accelerated Mathematics 2	12.50	090	H1
	PHIL10003	Philosophy: The Great Thinkers	12.50	085	H1
	PHYC20013	Laboratory and Computational Physics 2	12.50	088	H1
	PSYC10004	Mind, Brain and Behaviour 2	12.50	095	H1
2018	COMP10002	Foundations of Algorithms	12.50	094	H1
	ENGL20020	Romanticism, Feminism, Revolution	12.50	088	H1
	MAST20009	Vector Calculus	12.50	091	H1
	PHYC20012	Quantum and Thermal Physics	(12.50)	026	N
	ENGL20032	Poetry, Love, and Death	12.50	090	H1
	MAST20022	Group Theory and Linear Algebra	12.50	093	H1
	MAST20030	Differential Equations	12.50	092	H1
	PHYC20015	Special Relativity and Electromagnetism	12.50	094	H1
2019	ENGL20022	Modernism and Avant Garde	12.50	087	H1
	MAST30005	Algebra	12.50	094	H1
	MAST30021	Complex Analysis	12.50	094	H1
	PHYC20012	Quantum and Thermal Physics	12.50	095	H1
	PHYC30018	Quantum Physics	12.50	092	H1
	MAST30024	Geometry	12.50	097	H1
	MAST30026	Metric and Hilbert Spaces	12.50	094	H1
	PHIL20030	Meaning, Possibility and Paradox	12.50	099	H1
	PHYC30017	Statistical Physics	12.50	097	H1

Weighted Average Mark for this course 89.760

Master of Science (Mathematics and Statistics)

Year	Code	Title	Points	Mark	Grade
2020	COMP90072	The Art of Scientific Computation	12.50	092	H1^
	MAST90023	Algebraic Topology	12.50	097	H1^
	MAST90067	Advanced Methods: Transforms	12.50	096	H1^

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	MAST90136	Algebraic Number Theory	12.50	094	H1^
	MAST90068	Groups, Categories & Homological Algebra	12.50	099	H1^
	MAST90069	Introduction to String Theory	12.50	098	H1^
	MAST90097	Algebraic Geometry	12.50	100	H1^
	MAST90116	Research Project Part 1	12.50	093	CTC
2021	MAST90117	Research Project Part 2	12.50	093	CTC
	MAST90012	Measure Theory	12.50	098	H1
	MAST90029	Differential Topology and Geometry	12.50	096	H1
	MAST90132	Lie Algebras	12.50	100	H1
	MAST90118	Research Project Part 3	25.00	093	H1
	MAST90017	Representation Theory	12.50	100	H1^
	MAST90056	Riemann Surfaces and Complex Analysis	12.50	100	H1^

Weighted Average Mark for this course 95.143

Scholarships, Prizes, Awards and Special Achievements

Chancellor's Scholar
        Awarded 2017
Melbourne National Scholarship
        Awarded 2017
Dean's Honours List - Bachelor of Science - First Year
        Awarded 2017
Dean's Honours List - Bachelor of Science - Third Year
        Awarded 2019
Exceptional Talent in Mathematics and Statistics Scholarship
        Awarded 2020
Wyselaskie Scholarship in Mathematics
        Awarded 2021

Notes

If a ^ appears after a grade, the % mark recorded for that subject is excluded from the Weighted Average Mark in recognition of the impact of the 2020 COVID-19 Pandemic.

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End Of Transcript

Joanne Ligouris
Executive Director, Student and Scholarly Services and Academic Registrar

The University of Melbourne www.unimelb.edu.au

An Australian University established by an Act of the Victorian Parliament in 1853, the University of Melbourne is a public-spirited institution with excellence in research, learning, teaching and external engagement.

The University is registered with the Commonwealth Register of Institutions and Courses for Overseas Students (CRICOS number 00116K).

Course information, including subject descriptions and assessment requirements, are detailed in the handbooks available at http://handbook.unimelb.edu.au .

The University of Melbourne's current Grading Scheme

The information provided in the table below was correct as of 21 November 2016. Any changes will be published on the University's Grading Scheme website at http://grading-schemes.unimelb.edu.au/ .

Grade	Mark	Explanation
H1	80 - 100%	First Class Honours
H2A	75 - 79%	Second Class Honours Division A
H2B	70 - 74%	Second Class Honours Division B
H3	65 - 69%	Third Class Honours
P	50 - 64%	Pass
N	0 - 49%	Fail
NH	49%	Not completed/fail. Used when a student fails because they have not satisfactorily completed all prescribed (hurdle) requirements and would otherwise have passed the subject.
FL	-	Fail. Used for subjects marked on a pass/fail basis.
CMP	-	Completed. Only used for subjects marked on a pass/fail basis. CMP denotes that the subject was passed.
CNT	-	Continuing. Used for subjects that run over more than one teaching period where the subject has not been completed.
CTC	Refer to the explanation	Continuing - Completed. Used for each teaching period (except the final teaching period) where a student has been enrolled in and passed a continuing subject. When the subject is completed, for subjects that are not marked on a pass/fail basis, a mark (%) will also be recorded against each enrolment in the subject.
CNF	Refer to the explanation	Continuing - Fail. Used for each teaching period (except the final teaching period) where a student has been enrolled in and failed a continuing subject. When the subject is completed, for subjects that are not marked on a pass/fail basis, a mark (%) will also be recorded against each enrolment in the subject.
WD	-	Withdrawn from the subject after the date for making subject changes without penalty has passed.
NA	-	Not Assessed. Used for subjects that are non-assessable, such as Community Access Program audit studies.
GNS	-	Grade Not Submitted. Denotes that the assessment has not yet been finalised.
***	***	Denotes that a result is not applicable to the subject or that a result is unavailable.

Notes:

A. Successful completion of Honours courses usually requires a minimum grade of H3.
B. Previous University grading schemes can be accessed at http://grading-schemes.unimelb.edu.au/ .
C. Grading schemes for institutions that have now become part of the University (amalgamated institutions) for example: Melbourne Education (including Melbourne Teacher's College and Hawthorn Institute of Education), the Victorian College of the Arts, the Victorian College of Agriculture and Horticulture and The University of Melbourne TAFE can be accessed at http://grading-schemes.unimelb.edu.au/ .