

Nicholas Pritchard

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Education

University of Western Australia (UWA)	Perth, Australia
PhD in Neuromorphic Computing (Westpac Future Leaders Scholar)	February 2023 – February 2026
MPhil in Physics (Funded by Australian Research Training Program stipend)	March 2019 – May 2021 Awarded October 2021
BSc with Honours in Computer Science and Software Engineering (Valedictorian speaker)	March 2018 – November 2018 (WAM: 84%, GPA 7/7)
BSc Engineering Science, Computer Science	February 2015 – July 2018 (WAM: 83.5%, GPA 6.7/7)
Wesley College	Perth, Australia
Western Australian Certificate of Education	February 2000 – November 2014 (ATAR: 97.55)

Employment

Software Engineer	University of Western Australia
International Centre for Radio Astronomy Research	January 2022 – Ongoing
<ul style="list-style-type: none">Developing high-performance computational workflow management system for the Square Kilometre Array in a large-scale international collaboration of several teams.	
Research Assistant	University of Western Australia
International Centre for Radio Astronomy Research	August 2021 – January 2022
<ul style="list-style-type: none">Developed computational workflow management software systems for deployment on the Square Kilometre Array.Investigated neuromorphic machine learning techniques and energy-efficient numerical processors for astronomical sciences.	
Research Officer	University of Western Australia
School of Social Sciences	August 2021 – December 2021
<ul style="list-style-type: none">Developed and deployed a machine learning and computer vision pipeline for roadside object tagging over the entire Perth metropolitan area.	
Tutor	University of Western Australia
School of Indigenous Studies	February 2021 – November 2021
<ul style="list-style-type: none">Facilitated one-on-one tutoring to indigenous students studying computer science.	
Teaching Assistant	University of Western Australia
School of Physics, Mathematics and Computing	August 2019 – November 2019
<ul style="list-style-type: none"><i>High-Performance Computing (2019)</i>: Created and delivered 12 hours of lecture material to around 200 students on distributed scientific computing. Additionally authored two assignments and a final exam, liaised with laboratory demonstrators and fielded student enquiries.	
Industrial Trainee	CSIRO Kensington
Pawsey Supercomputing Centre	November 2017 – February 2018
<ul style="list-style-type: none">Designed, implemented, tested and presented a high-performance simulation code for a quantum computing algorithm.	
Laboratory Demonstrator	University of Western Australia
School of Physics, Mathematics and Computing	October 2017 – August 2021
<ul style="list-style-type: none"><i>Systems Programming (2021)</i>: Mentored students and communicated feedback to unit coordinators on assignments.<i>Data Structures and Algorithms (2021)</i>: Aided students during laboratory hours and provided marking assistance.<i>Machine Learning (2019, 2020, 2021)</i>: Aided post-graduate students during laboratory hours and provided marking assistance.	

- *Computer Networks (2019)*: Aided students during laboratory hours and collaboratively created a project assignment for around 200 students.
- *Computer Analysis and Visualisation (2017)*: Authored 12 weekly assignments delivered to around 150 students over a summer semester. Additionally developed and deployed a cloud-hosted automatic grading system for these assignments.

Casual IT Administrator

Thermal Systems Combustion Engineering Pty Ltd

November 2015 – January 2018

- Designed, budgeted, installed and maintained IT solutions for a specialised engineering firm.

Volunteering / Student Activities

UWA Programming Competition Society

University of Western Australia

President

March 2019 – March 2021

Vice President

March 2018 – March 2019

- Led a committee of eight students over two elected terms. Delivered at least 30 open lectures to students. Managed hundreds of members and a website accessed by students from multiple universities and high schools. Coordinated the planning and management of at least 40 events, including charity fundraising and in collaboration with other student clubs.

School of Physics Mathematics and Computing Education Committee

University of Western Australia

Undergraduate Student Representative

March 2018 – November 2018

- Communicated student feedback and opinions on decisions made by the university department.

Global Learning Office

University of Western Australia

Student Volunteer Representative

July 2017 – December 2017

- Consulted dozens of prospective exchange students at several events providing technical advice and advice based on my experience abroad.

Coders for Causes

University of Western Australia

Inaugural Ordinary Committee Member

September 2016 – September 2017

- Helped grow a new student club as part of its first committee to deliver pro-bono software development for non-profit groups and charities.

Cultural and Sporting Achievements

CSIRO OnPrime

Perth, Australia

Program participant

November 2020 – January 2021

- Took part in a startup pre-accelerator program investigating the use of writing and reference management tools in academia.

International Collegiate Programming Contest

Sydney, Australia

South Pacific Regional Finalist

November 2017

- Represented UWA at the South Pacific Regional Finals held at the University of New South Wales, achieving 10th place.

Study Abroad Exchange

Champaign-Urbana, USA

The University of Illinois at Urbana-Champaign

January 2017 – May 2017

- Recipient of competitively awarded study-abroad scholarship.

Speech and Drama

Perth, Australia

Adjudicator's Assistant

2015 – 2022

- Aided poetry, monologue and duologue eisteddfod sessions in six Perth Speech and Drama Festivals.

Competition and Examinations

2010 – 2014

- Australian Music Examination Board Speech and Performance examinations up to and including Grade 8.
- First place in poetry, monologue and duologue contests, including the Goddard Lawrence Trophy in 2014, awarded to the single best poetry performance in the festival.

Referees

Available upon request