



Jonathan Chan

Project Engineer | Coastal Engineer

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Jonathan is a Project Engineer at the Water Research Laboratory. He completed his Bachelor of Environmental Engineering and Computer Science at the University of New South Wales in 2021. As part of his studies, his Honours Thesis investigated the variability of shoreline behaviour along the east coast of Australia, which contributed to him receiving the DN Foster Award in coastal engineering from Engineers Australia.

Jonathan has extended his understanding of coastal and hydraulic processes through physical model testing of breakwater structures and dam spillways. He also has gained experience with environmental data collection and has applied his computer science background conducting data analysis and visualisation.

Qualifications and affiliations

BE (Environmental Engineering), UNSW, 2021

BSc (Computer Science), UNSW, 2021

Professional history

September 2021-Current: Project Engineer, UNSW WRL

December 2019-February 2020: Intern, UNSW WRL

Expertise

- Coastal structures and processes
- Beach geomorphology and coastal stabilisation
- Environmental data collection
- Physical model design, construction and testing
- Dam hydraulics

Summary of relevant experience

Physical modelling

2020: Opotiki river entrance training walls

2021: Mandorah breakwater

2021: Overseas Passenger Terminal prop-wash physical modelling

2021: Somerset Dam

2022: Ebeye fringing reef and coastal protections

2022: Te Ara Tupua coastal protections

2023: Tupua Horo Nuku seawall

Environmental data collection and analysis

2020: Big Swamp restoration monitoring

2022: Careel Creek sediment dredging analysis

2022: Tuggerah Lakes mapping of MBO's

2023: Gold Coast imaging network

Computing skills

GIS: QGIS, ArcGIS

Programming: Excel, Python, Matlab

Engineering software: XBeach, AutoCAD