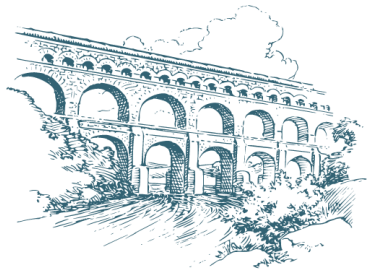
Course Overview

Software Architecture

Richard Thomas

February 23, 2026

University of Queensland



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- How to build software that is *scalable*

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Case Studies

Practicals

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- Use cloud platform tools to *monitor* and *scale* applications

§ Assessment

Assessment

Cloud Infrastructure Assignment	40%
API Functionality	10%
Deployed to Cloud	10%
Scalable Application	20%
Architecture Presentation	30%
Capstone Project (Delivering Quality Attributes Project)	30%

Cloud Infrastructure

1. Build a *RESTful web API* according to our specification
2. *Test* that the API satisfies the specification
3. *Deploy* the API to a cloud platform
4. *Scale* the API to handle *variable* and *high* loads

Capstone Project

1. Teams will be allocated a project
2. *Design* and *implement* the project

Architecture Presentation

- Team presents details of project architecture
  - *Everyone* presents
- *Individuals* present on different sets of questions
  - Compare and contrast with another architectural pattern
  - Pros and cons of architecture
  - Implementation characteristics of design
  - Potential security risks of architecture
- *Everyone* is expected to understand entire architecture
  - Questions can be directed to *anyone*

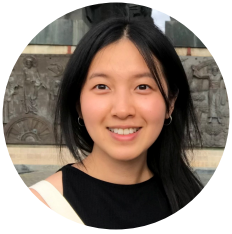
AI

- Great tool for producing code
  - *Accuracy* is not so great
- *Hallucinates* about details of API spec
- Attempts to *rewrite* Learner Lab or UQ security policies
  - *Breaking* test runner
- Describe how you use AI in assignments
  - Include logs of AI tool history

§ You and Us

Who are we?

Richard Thomas



Thuy Dao

Millie Hughes

Zaidul Alam

Vy Ho

Nimesh Garg

Cameron Badman

Question

Who are *you*?

Course Website

All course material is hosted on the course website

- `https://csse6400.uqcloud.net`

If you find any *errors* or wish to suggest any *improvements*, please submit a pull request on GitHub

- `https://github.com/CSSE6400/software-architecture`

GitHub Username Registration Form: **6pm on Feb. 23**[1]

You need access to the CSSE6400 organisation on GitHub

- *Practicals* – Access to code
- *Assessment* – Most submissions

https://forms.gle/ukuiruE2Wt2k5xE89

[1] Yes, that is *today*