

# Yatong Nie

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- Proven track record of successfully implementing digital twin solutions in complex projects and capable of identifying opportunities to leverage digital twins to drive innovation and value.
- PhD in Civil Engineering from UNSW Sydney and has expertise in digital twin technologies.
- Proficient in Navisworks, Revizto, Revit, ProjectWise, Dynamo, Assemble and Python programming.
- Excellent communication skills both internally and externally.
- Driven by a passion to create collaborative and productive methods of project delivery and management by digital twins technologies.

## EMPLOYMENT

### Digital Engineer

July 2022- Present

#### WSP Australia

1. **Coordination:** Coordinate design teams, contractors, and government across all project phases. Initiate and run coordination meetings with project teams.
2. **Review/Audit:** Undertake technical reviews of project deliverables; Produce federated models and audit against Project Information Requirements (PIM), including generation of asset registers for project handover.
3. **4D simulation:** Support Contractors throughout project delivery phase in coordinating planned activities using 4D construction staging/simulation.
4. **Development:** Develop automated tools/workflows to accelerate the process of model review, clash detection and asset management.
5. **Innovation:** In charge of the innovation project which is about embodied carbon reporting directly from IFC schema.

#### Involved projects:

*South Geelong to Waurn Ponds Railway Duplication, \$700M, VIC, Australia*

*Transport Access Programs: Station Upgrades (Killara Station, Turrella Station, Mascot Station and Tuggerah Station)*

*Commuter Car Park projects (Leppington, Edmondson Park South and North), NSW, Australia*

### Graduate Digital Specialist

May 2021- July 2022

#### Digitise Consulting

1. Developed and implemented procedures for the management of digital information and inspections of 3D federated model throughout project lifecycle.  
**Involved projects:** M5 Motorway, M6 Motorway Stage1, Great Western Highway Upgrade, Mamre Road Upgrade etc.
2. Developed programs and applications to improve project delivery and internal company workflow.  
**Tools used:** Python, SQL, Automate flow, Power Apps, Power BI
3. Managed and undertook investigations of IFC and BCF format files.

## RELEVANT EXPERIENCE AND PROJECTS

### South Geelong to Waurn Ponds Railway Duplication

Oct 2022 – Present

#### BIM/DE Coordinator

- 1.
2. Develop IFC tool to rapidly export metadata from IFC files in bulk and produced graphic dashboard to analyse data quality and integrity.
3. Prepare and run weekly clash detection and BIM coordination meetings supported by Revizto.
4. Run/update Revit Dynamo attribute data scripts.
5. Maintain and configure Revizto, Anvil and BIM 360.

### Transport Access Programs of Killara, Turrella, Mascot and Tuggerah Stations Upgrades

July 2022 - Present

1. Undertake technical reviews of project DE deliverables including federated models, asset register and metadata.
2. Build and update 4D sequence animation according to program updates from planning team on a monthly basis.
3. Support and check the VPR submissions.

## EDUCATION

### Doctor of Philosophy

Apr 2018 – Feb 2022

#### UNSW Sydney

Thesis: Short- and long-term performance of timber-timber composite (TTC) floor system (Nominated for the Dean's Award)

Supervisors: Prof. Hamid Valipour and Prof. Stephen Foster

## REFERENCES

Available upon request