

Arijeet Roy

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Results-driven Civil Design Engineer with practical experience in structural assessments, site inspections, and delivering For-Construction (FC) documentation. Specialized in national telecommunications infrastructure upgrades, with applied structural analysis to AS4100, AS3600, AS5100, and AS4600. Proficient in AutoCAD and Civil 3D, supporting primary and alternative design solutions. Combines highly technical drafting and SAED coordination expertise with a proven track record in team leadership, complex stakeholder management, and compliance remediation at Suncorp Group. Site-ready and commercially astute, bringing the exact communication, risk management, and drive required for fast-paced project delivery.

CORE SKILLS

Civil & Structural Engineering	Structural analysis AS4100 AS3600 AS5100 AS/NZS 5131 AS4600 Geomechanics Concrete technology
Design & Drafting	AutoCAD Civil 3D Revit 12D SolidWorks Red-Line Markups Draft-for-Construction documentation
Site & HSEQ Compliance	WHS compliance Site inspections HSEQ management plans PPE protocols Quality monitoring Environmental compliance
Project Delivery	Construction programming Procurement support Progress claims Subcontractor coordination QA/QC MS Project Scheduling
Reporting & Documentation	Daily site diaries Technical reporting Risk assessment SharePoint Jira Confluence Excel (advanced)

TECHNICAL EXPERTISE

Low-Carbon Cementitious Systems - Honours Thesis, Macquarie University

- Designed and tested 150+ concrete mix variations in the university's concrete lab to reduce embodied carbon while holding structural performance steady.
- Cut research turnaround time by 40% through a streamlined testing protocol.
- Nominated for Greatest Commercial Development Potential, one of the university's top honours engineering awards.
- Applied materials science and concrete technology principles directly relevant to sustainable infrastructure specification and structural assessment work.

RELEVANT WORK EXPERIENCE

Civil Design Engineer

Design Development Consultant Australia (DDCA) | Aug 2023 – Aug 2024

- Delivered Draft-for-Construction (DFC) and For-Construction (FC) structural assessments across 15+ site upgrades from 4G to 5G, spanning Telstra, Optus and Vodafone infrastructure in NSW, VIC and QLD.
- Modelled structural framing, antenna mounts, RF dishes and 5G equipment in AutoCAD and Civil 3D at each site, producing FC drawings that specified exact installation sequencing for construction crews.
- Verified structural capacity against AS4100, AS3600 and AS5100 through on-site measurements, confirming existing tower and pole assets could carry the added 5G load before sign-off.
- Coordinated Site Acquisition, Environment and Design (SAED) across the portfolio, resolving landowner access constraints and design conflicts directly with property owners, drafting teams and project managers to keep all 15+ sites on schedule.
- Identified a recurring datum error in survey data imports, built a validation checklist to catch it early, and cut design turnaround time by 20%.
- Produced Red-Line Markups and alternative civil design solutions, supporting delivery from Phase 1 feasibility through Phase 2 construction.
- Inspected active construction sites for WHS and PPE compliance, checking as-built records against national standards.

RELEVANT ENGINEERING PROJECTS

Angas St Bridge Upgrade (Industry Project)

Transport for NSW / City of Ryde

- Conducted meticulous structural analysis of 4 bridge design alternatives in compliance with AS5100, AS4100 and AS4600 standards, evaluating feasibility against TfNSW project requirements.
- Led selection of the final bridge design option based on structural performance, compliance, and site suitability - then built detailed CAD models for the selected design.
- Produced a comprehensive structural assessment report and conducted geotechnical analysis of existing bridge foundations, site conditions, and retaining walls to evaluate upgrade sustainability.

CIVL3401 Construction Management - Project Manager

Road Design & Construction (based on real project of Mt Gilead Estate, Campbelltown NSW)

- Spearheaded preparation of project documentation including scope, schedules and risk assessments, ensuring full compliance with safety and regulatory standards.
- Crafted and submitted detailed project proposals and tender bids, ensuring accuracy in budgeting and timelines to achieve seamless project execution.
- Engineered traffic management plans and conducted environmental assessments, proactively mitigating construction risks and optimising road design for safer delivery.

ENGG3000 - Ball Collecting Robot

Multidisciplinary Group Engineering Project

- Decomposed a complex engineering system into functional subsystems across a multidisciplinary team, coordinating between mechanical, electrical and software disciplines to deliver an integrated solution.
- Designed the robot's body structure, internal compartments for ball collection, and the collection and disposal mechanism - applying creative problem-solving and structural thinking to meet system constraints.

OTHER PROFESSIONAL EXPERIENCE

Team Leader (Secondment)

Suncorp Group | May 2025 – November 2025

- Led a 14-member operational team through a workflow change program, managing daily resourcing and mitigating operational risk to maintain service continuity under sustained pressure.
- Lifted Service Level Agreement performance by 10% and reached 100% compliance remediation.
- Acted as the primary cross-functional liaison across Product, Compliance and Workforce Planning teams, building the stakeholder coordination and commercial skills that site delivery roles need.
- Delivered a capability uplift program that reached 100% process adoption within two weeks, earning the Elevate Award for top 10% performance nationwide.

Product Specialist

Suncorp Group | Sept 2024 – Present

- Manage 50+ daily customer interactions within CTP insurance regulation, using Tableau and Salesforce data to identify process bottlenecks, then redesign workflows to cut handling time by 25%.
- Apply the same contract interpretation, compliance and stakeholder coordination discipline that regulated insurance work demands to project coordination and delivery contexts.

Specialist

Apple | Aug 2022 – Feb 2024

- Delivered exceptional Apple product knowledge and customer service, improving customer experience and service levels and developed strong communication, teamwork and stakeholder engagement skills. Worked directly with local council clients on technology solutions.

EDUCATION

Bachelor of Engineering (Honours), Civil

Macquarie University, Sydney | Graduation: Jan 2024

Coursework included: structural engineering, geomechanics, concrete technology, transport engineering, and construction management.

CONTINUED PROFESSIONAL DEVELOPMENT

- Engineering Professional Year - NIT Australia in partnership with Engineers Australia (in progress, until Jan 2027); structured program covering Australian engineering practice, workplace compliance, and professional standards aligned with Engineers Australia requirements.
- Studying toward Autodesk Certified Professional certification for AutoCAD and Revit - actively building software proficiency to industry-recognised accreditation standard.
- Completed LinkedIn Learning certifications in Autodesk Civil 3D, Revit Structure, and InfraWorks Bridge Design - reinforcing CAD and infrastructure design capability across key construction delivery tools.
- Completed LinkedIn Learning certifications in Project Management Foundations, Agile Project Leadership, and Six Sigma Green Belt - building structured project coordination, construction programming, and continuous improvement skills directly applicable to site-based delivery.

VOLUNTEER EXPERIENCE

Crowdfund Raiser

Youth's Voice Foundation | *Chattogram, Bangladesh*

- Coordinated fundraising initiatives to provide winter clothing for underprivileged communities, managing donor engagement and campaign logistics.

Teacher & Volunteer Educator

The Duke of Edinburgh's International Award Foundation | *Chattogram, Bangladesh*

- Delivered foundational literacy and numeracy education to orphaned children aged 5–10, developing lesson plans and adapting teaching methods to individual learning needs.

CERTIFICATIONS & MEMBERSHIPS

- Member of Engineers Australia (Since 2019)
- NSW White Card
- Unrestricted Driver's License