

Daniel Hargreaves

Graduate Civil Engineer

Sheffield, United Kingdom
daniel.hargreaves@gmail.com
+44 7412 839 201
linkedin.com/in/danielhargreaves



Profile

Civil engineering graduate with an MEng from the University of Sheffield and a 12-month industrial placement at Arup. Experienced in structural analysis, site surveying, and AutoCAD modelling through both academic projects and professional work. Achieved a first-class degree with a dissertation on sustainable concrete alternatives that was shortlisted for the ICE David Hislop Award.

Experience

Placement Engineer, Arup, Leeds

Jul 2023 – Jun 2024

Worked within the infrastructure team on highways and bridge projects across Yorkshire during a 12-month industrial placement.

- Produced **35 structural calculations** for a £14 million highway overbridge replacement scheme using Tekla Structural Designer
- Carried out **12 site inspections** on live construction sites, writing condition reports and flagging 4 non-conformances to the project manager
- Built a **3D AutoCAD model** for a pedestrian footbridge spanning 28 metres, reducing design review time by 2 weeks
- Assisted with drainage design for a **2.4 km section** of the A64 improvement scheme, sizing 18 attenuation features

Student Ambassador, University of Sheffield, Sheffield

Oct 2021 – Jun 2023

Part-time role representing the Department of Civil and Structural Engineering at open days and recruitment events.

- Led **24 campus tours** for prospective students and their families over 2 academic years
- Presented to groups of up to **80 people** about student life and the engineering programme

Education

MEng (Hons) in Civil Engineering, University of Sheffield, Sheffield

Sep 2020 – Jun 2025

First Class Honours (predicted). Includes a 12-month industrial placement year at Arup.

- Dissertation: "**Geopolymer Concrete as a Low-Carbon Alternative in UK Bridge Construction**" — tested 16 mix designs and achieved 28-day compressive strengths within 8% of OPC benchmarks
- Relevant modules: Structural Mechanics, Geotechnics, Hydraulics, Steel and Concrete Design, Construction Project Management
- Awarded the **Department Prize for Best Year 3 Design Project** (reinforced concrete frame building)

A-Levels in Mathematics (A*), Physics (A), Geography (A), Silverdale School, Sheffield

Sep 2018 – Jun 2020

Achieved A*AA. Extended Project Qualification (EPQ) on flood risk management in Sheffield, graded A.

Skills

AutoCAD & Revit, Tekla Structural Designer, MATLAB, Microsoft Project, Structural Analysis (Hand & Software), Geotechnical Testing, Topographic Surveying (Total Station & GPS), Technical Report Writing, Health & Safety Awareness (CSCS Card Holder), Teamwork & Communication

Certifications

CSCS Green Card – Labourer, Construction Skills Certification Scheme

Jun 2023

Student Member, Institution of Civil Engineers (ICE)

Oct 2020

Languages

English (native)

Projects

IMechE Bridge Design Competition — University Team Lead

Oct 2024 – Mar 2025

Led a team of 4 students in designing and building a model bridge for the IMechE regional competition.

- Designed a **Warren truss bridge** from balsa wood that supported **42 kg** — 3rd place out of 18 university teams
- Ran **6 load-testing sessions** in the lab to iterate on joint connections, improving failure load by 35% from initial prototype
- Presented the design rationale to a panel of **3 industry judges** from Mott MacDonald and WSP

Topographic Site Survey — Academic Project

Sep 2024 – Dec 2024

Completed a full topographic survey of a 1.2-hectare brownfield site in Sheffield as part of a group project.

- Collected **340 survey points** using a Leica total station over 3 field sessions
- Processed data in **Civil 3D** to produce a contour map with 0.25 m intervals and a cut-and-fill analysis
- Identified a **1.8 m level difference** that required a retaining wall solution — designed a cantilever wall to BS EN 1997

Extra Curricular Activity

Sheffield University Civil Engineering Society — Vice President

Sep 2024

Organised events and industry talks for the departmental society.

- Arranged **6 site visits** to projects including the HS2 Curzon Street Station and Manchester Airport Terminal 2 extension
- Grew society membership from **85 to 140 students** by launching a LinkedIn page and weekly newsletter

Sheffield Hallam Parkrun — Regular Volunteer

Jan 2022

Volunteered as marshal and timekeeper at the weekly 5K event.

- Marshalled at **38 events** over 3 years, helping manage a course used by up to 250 runners each Saturday