## **G**AtkinsRéalis

In the company of...

# **SOLVERS**



Business area: Transportation

**Requirements:** On track to achieve a minimum of a 2.2 Bachelors/BEng degree or 2.2 Masters/MEng in Aerospace and Aeronautical Engineering, Applied Physics, Astrophysics, Building Services, Electrical Engineering, Electronic Engineering, Physics, Power Engineering, Renewable Energy.

#### Our teams and what they do

#### Rail

Summer placement locations: Birmingham

Our teams work on a broad array of projects within the rail and highways markets from flagship projects such as HS2, East West Rail, Sizewell C to essential maintenance and renewal projects with Network Rail, National Highways and local authorities. Opportunities also exist to support other sectors within the AtkinsRéalis business including, Infrastructure, Energy, Nuclear and Defence.

You'll join one of our design teams and gain technical experience of power and distribution systems (Low Voltage and High Voltage), lighting design and specialist systems engineering skills such as Earthing & Bonding and Electromagnetic Compatibility (EMC). To start, you will work within a technical role, working with industry leaders and undertaking a variety of day-to-day project related tasks which may include:

- · Supporting technical report writing.
- Helping with Site surveys.
- Supporting in preparation of technical design drawings using computer aided modelling/CAD design.
- Modelling electrical systems using specialised software (Trimble, ETAP, Dialux, Lighting Reality, ERACS, PSpice, Matlab).
- Applying electrical and physics fundamental theory to solve engineering problems.
- Applying sustainable thinking and methods to all projects to help AtkinsRéalis and our clients attain their Net Zero pledges.

We design electrical systems across the network including stations and depots, as well as the lineside infrastructure which powers trains, track and signals, ensuring that they are integrated to provide a safe and reliable rail network. We also design public realm, highway and interior lighting systems.

We work collaboratively with colleagues across the UK, Middle East, North America, Australia and Asia, allowing you to work on projects across different global regions. Working on flagship projects is different countries may also provide the opportunity to work abroad, should this interest you.

Working as a placement student in our Transportation (Rail and Highways) teams will allow you to gain a variety of experience including technical, management, commercial and leadership to enable you to pursue a fulfilling career with AtkinsRéalis and develop as a well-rounded engineer or project manager.

#### **Highways Infrastructure**

**Industrial placement locations:** Epsom

Our Specialist and Architectural Lighting Team works on iconic projects such as HS2, Silvertown Tunnel, Barbican Centre, Bridgwater Tidal Barrier, NEOM. We deliver innovative lighting solutions for major infrastructure in transport, aviation, ports, defence, education, and government sectors.

As a placement student (Lighting Design Engineer) you will step into a dynamic role where you'll help shape the future of lighting across the UK and internationally.

Opportunities also exist to support other sectors within the AtkinsRéalis business including Rail, Energy and Nuclear.

Some of the areas of work we are involved in include:

- All aspects of interior and exterior lighting
- Daylight, sun path, and overshadowing analysis
- Glint and Glare Assessments
- Environmental lighting and sustainability benchmarking
- Energy and carbon management
- · Architectural and heritage lighting design, including façades and decorative features
- Planning and Development Consent Order (DCO) support
- Economic appraisals

You'll join our design team and help deliver lighting that enhances places and lives as well as gain technical experience. We champion innovation—so if there's an area you're passionate about, we'll support you to lead it.

To start, you will work within a technical role, working with industry leaders and undertaking a variety of day-to-day project related tasks which may include:

- Supporting technical report writing.
- Helping with Site surveys.
- Supporting in preparation of technical design drawings using computer aided modelling/CAD design.
- Modelling electrical systems using specialised software (Trimble, ETAP, Dialux, Lighting Reality, ERACS, PSpice, Matlab).
- Applying electrical and physics fundamental theory to solve engineering problems.
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### **Rolling Stock**

#### Summer placement locations: Derby

The Rolling Stock team offers a unique opportunity for passionate placement students to make a significant impact in the rail industry. Our work is varied as we solve complex problems for our rolling stock clients across the full breadth of the rail industry, both in the UK and overseas, as the largest independent rolling stock consultancy in the world. You could find yourself carrying out feasibility studies for HS2, advising train operators on reducing carbon emissions, reverse engineering components for TfL or designing the installation of digital signalling systems onto heritage steam trains.

Our diverse and supportive team is dedicated to nurturing the next generation of experts in trains, trams, locomotives, and vehicles, offering a wide range of opportunities for you to become an engineering consultant in a variety of disciplines including mechanical/electrical systems, maintenance management, project engineering/management, systems, and strategy, structural/dynamic simulation as well as engineering design.

You'll undertake a variety of tasks which may include:

- Supporting and leading on-site vehicle inspections
- Producing technical reports and carrying out technical investigations
- Present outcomes internally to colleagues and externally to clients
- Working with our clients directly, understanding their needs and creating the deliverables that will help them
- Arranging and managing internal and external meetings
- Producing proposals to help the team win work, including putting together estimates
- Managing projects, including tracking time and finances

#### Railway Signalling & Telecommunications – Engineering

**Industrial placement locations:** Crewe

**About our team and projects:** AtkinsRéalis are one of the UK's leading organisations delivering enhancements and renewals of the Command-and-Control systems that ensure the safe and efficient operation of the UK's railway infrastructure and passenger/freight services. This includes implementing changes to signalling systems made up of trackside electronic & electrical control equipment (e.g. signals, power supplies, track switch machines, level crossings, telephones), modern electronic signal box control systems and the vital telecommunications networks connecting it all together.

We support high profile industry clients such as Network Rail, Transport for London, Transport for Wales, Transport for Scotland, TransLink (in Northern Ireland), EDF, and High Speed 2 Ltd throughout the full lifecycle of project delivery, from initial feasibility studies through to design, installation, testing and commissioning of the signalling systems into operation. This includes project management and whole-life asset support services. Our work directly influences the lives of people across the UK and overseas by improving their passenger experience, making their journeys better and making our world a greener place to live.

Your role: As a placement student in AtkinsRéalis Rail Signalling & Telecommunications team you will develop through a fast-tracked scheme consisting of rotational placements around the business with opportunities available in both the UK and overseas. You will have the opportunity to work with our Design, Engineering Management, Project Management, Construction and Testing disciplines across a wide and diverse range of high-profile UK railway infrastructure projects. You will play a key role in pioneering innovative initiatives across the business including the development and application of digital technologies to our delivery processes and supporting the business to achieve its Net Zero Carbon targets. By joining our placement scheme, you will become part of our community of student engineers at various stages of the development programme. Together you will complete training courses, meet-ups for shared learning days and exciting social events.

To apply, please return to the main job specification