

## JUNIOR TELECOMS ENGINEER

# Aiden Murray



Cardiff, United Kingdom // [aiden.murray@gmail.com](mailto:aiden.murray@gmail.com) // +44 7473 291 568 // [linkedin.com/in/aidenmurray-telecoms](https://www.linkedin.com/in/aidenmurray-telecoms)

Telecommunications Engineering graduate from the University of South Wales with a summer placement at **Openreach**. Assisted with OTDR testing on **14 fibre optic cable routes**, supported installation of **6 FTTP cabinets**, and produced survey reports covering **340 premises**. Proficient in fibre testing, network design, and RF analysis, with **Upper Second Class Honours (63% average)** and IET graduate membership.

## EXPERIENCE

Jun 2025 – Aug 2025

**Telecoms Engineering Intern (Summer Placement)**, Openreach, Cardiff

Completed a 12 week summer placement in the fibre planning and deployment team at Openreach Wales.

- Assisted with OTDR testing on **14 fibre optic cable routes**, verifying splice losses and connector reflectance against Openreach acceptance criteria
- Supported the physical installation of **6 FTTP street cabinets**, including duct clearance, cable pulling, and splicing supervision
- Produced planning survey reports for **3 new build housing developments** covering **340 premises**, recording duct routes, pole positions, and chamber locations
- Used Openreach planning tools to check **25 circuit routes** for capacity and identify infrastructure requirements

Jan 2024 – May 2025

**IT Support Technician (Part-time)**, University of South Wales, Pontypridd

Part-time IT support role across the Treforest campus.

- Resolved an average of **20 support tickets per week** covering network connectivity, hardware faults, and software issues
- Maintained structured cabling in **4 server rooms** and assisted with a wireless access point survey

## EDUCATION

Sep 2022 – Jun 2026

**BEng (Hons) Telecommunications Engineering in Telecommunications**, University of South Wales, Pontypridd

Graduated with Upper Second Class Honours (**63% average**).

- Final year project on 5G mmWave propagation modelling in urban environments using ray tracing simulation, graded **71%**
- Relevant modules: Optical Fibre Communications, Wireless Systems, RF Engineering, Network Planning, Digital Signal Processing

## SKILLS

OTDR Testing & Fibre Splicing • FTTP/GPON Network Architecture • RF & Microwave Analysis • Network Planning Tools • AutoCAD (Network Design) • Spectrum Analyser Operation • MATLAB (Signal Processing) • 5G NR Fundamentals • Structured Cabling (Cat6/Cat6a) • Technical Report Writing • Python • Microsoft Excel

## CERTIFICATIONS

Sep 2025 – Sep 2025

**IET Graduate Member (GMIET)**, Institution of Engineering and Technology

Mar 2025 – Mar 2025

**City & Guilds 3667 Fibre Optic Splicing (University Module)**, University of South Wales

## LANGUAGES

English - Native

## PROJECTS

Sep 2025 – Apr 2026

**5G mmWave Urban Propagation Study (Final Year Project)**

Modelled 5G mmWave (28GHz) propagation characteristics in a section of Cardiff city centre using ray tracing software.

- Built a 3D urban environment model covering **0.25 sq km** with building geometry from OS MasterMap data
- Simulated signal coverage for **4 base station configurations** and compared results against published measurement data
- Found that beamforming with 64-element arrays could extend usable coverage radius by **40%** compared to omnidirectional antennas

## EXTRA CURRICULAR ACTIVITY

Sep 2024 – May 2026

**USW Electronics and Telecoms Club Chair**

Founded the club with **28 members**, organised **3 industry talks**, and coordinated a visit to BT's Adastral Park research centre for **15 students**.