Northumbria University NEWCASTLE

GRADUATE FUTURES
CAREERS | EXPERIENTIAL LEARNING | PLACEMENTS
ENTERPRISE | INTERNATIONAL MOBILITY

Industry Partnership Opportunity

Collaborate with Northumbria University Computing students

Here at Northumbria University we are developing our undergraduate computing programme to bridge the gap between academic learning and industry expertise by offering all of our second year computing undergraduate students the chance to participate in real-life projects provided by businesses.

This is your chance to shape the next generation of computing professionals while gaining access to fresh talent and innovative solutions.

How it works:

5	4	6
Week project between March - April 2027	**Short online meetings with students**	**Computing Disciplines**

Format: Students based at Northumbria University work in small teams on a project part-time, with academic supervisors providing ongoing mentorship throughout the project.

Experience: Students are in their second year of study and are keen to apply their technical expertise to real-world industry projects, turning classroom learning into practical impact.

Duration: Projects take place for ~5 weeks between March - April 2027.

Time Commitment: You will be required to participate in at least four brief meetings with students throughout the duration of the programme. These meetings will predominantly be conducted online.

Agreement: There will be a standard project agreement shared with you if your project is taken forward.

Result: Work completed by the student team will be handed over to you at the end of the project.

Why consider multiple teams?: There's no additional workload for your organisation in taking on more than one team but you'll benefit from a broader range of ideas and approaches for your project.

Types of projects students can tackle:

Discipline *students from these programmes are working towards these skills.	Types of projects
Computer Science Topics range from programming to architecture, including software development and engineering. Throughout the programme students discover the impact of computers on people and society, exploring essential questions around privacy, attack prevention, and the effects of globalisation.	• User research and/or market research, including user evaluation, competitor analysis etc. • Proof of concept software development (app, web, mobile and desktop). • Accessibility analysis with respect to W3C- Web Content Accessibility Guidelines (WCAG) • Software testing, refactoring, code reviews and debugging. • Creation of educational or training materials. • A review of developer workflows within a software company. • Data cleaning and analysis, including CSV files, spreadsheets and databases. • Reports and guidance on the use of state-of-the-art technologies including AI.
Business Computing Topics include programming, data analytics and software development, gaining critical knowledge in business areas like management and IT operations.	• User and/or desk-based research: Qualitative and Quantitative research. • UX: User testing, web/mobile evaluation, UI assessments, information architecture assessment, prototyping etc. • Social Media Research: data analysis or development of a new media strategy • Business Development: Web and/or database work.
Networks and Cyber Security Topics include network engineering, digital security and forensics. Studying Advanced Network and Security using state-of-the-art virtual machines, simulation or programming tools that could include AI or Machine learning	• Build best practices policy guidance for organisations, employees or end users • Design a localised secure and efficient network for a specific scenario • Perform a wireless site survey for an organisation • Create security awareness training • Vulnerability reporting tool

Data Science and Artificial Intelligence Topics include machine learning, computer vision and evolutionary computation. Students have knowledge in computer programming, algorithms and data structures, data management, cloud computing, as well as key topics in artificial intelligence, computer vision, robotics and automation, and machine learning.	• Data cleaning and preprocessing of real-world datasets to make it suitable for analysis. • Predictive modelling using machine learning algorithms to solve a business problem. • Natural language processing application - Build an NLP model to analyse data. • Data visualization dashboard using tools like Tableau or Power BI. • Recommendation system for a specific business case. • Anomaly detection - Implement a system to identify unusual patterns in datasets. • Optimisation problem using AI techniques. • Image classification - Create a model to classify images into different categories using CNNs etc.

Games Computing Topics include games programming, games design and 3D graphics programming as well as core computer science modules such as computer programming, algorithms and data structures, data management, and cloud computing.	• Gameplay evaluation and testing - Evaluate and produce a report on strengths and weaknesses in gameplay design. • Game concept survey - reporting on concepts, innovations, audience responses and concept brainstorming events. • Gameplay design - Developing an initial game concept into a game design document. • Software development - Implementation of software components using C++ or Unreal. • Gamification - Implementation of gamification elements for education/outreach/publicity.

Timeline and Next steps:

If you're interested in taking part please complete the application form with your project idea by Friday, 13th November 2026.

