Immersive Experiences Week 1

The World of Computer Scientists

Understand the key career paths in computer science: software engineering, video game designing and the emerging worlds of AI and machine learning

Take part in icebreaker activities to get to know your fellow students

Learn about the blend between innovation and computer science and see how tech entrepreneurs are changing the world

Career coaching on skills needed to become an outstanding computer scientist

Robotics

Understand the complex ethics surrounding robotics and AI

Assemble a state of the art educational robot in teams

Programme your robot in teams in a series of increasingly difficult challenges

Use scratch based coding or python to help your robot navigate an obstacle course

Software Architecture and AI

Software development life cycle, software design

Explore the principles and concepts involved in the analysis and design of large software systems

Workshop:The best approaches to conceptualizing software structure and constraints

See how AI is revolutionising the world of computer science

Build your own chatbot in teams

See how you can make the most of Chat GPT and other resources to further your studies and career

UI/UX

Become the UX designer: learn how to gather a client's requirements,

Working with a prototype: learn the different approaches and techniques used when creating a new design

Explore the 'front-end' (also known as client side) of software engineering

Discover the most important software-building tools: HTML, CSS, JavaScript and more

Web development simulation, create a full-stack project using Python & Java

Back End Engineering and Video Game Design

Explore the main algorithms and discover how to solve programming problems efficiently

Get hands-on: create the back end of a full-stack project using Python

Learn common methodologies, tips and tricks to perform better when coding

Undertake in introduction to video game design

Use a game template to build your own design in teams

Showcase your work from the summer experience so far and receive feedback from professionals

Immersive Experiences Week 2

Programming+

Debug an existing video game and undertake an introduction to Github

Advance your knowledge of robotics by programming a robot to do a complex dance routine using its own language

Enter the complex world of machine learning

The Game Jam

Explore the foundational elements of what makes a great video game, Story, game design, level creation UI/UX Design

Develop your concept and put your ideas into action

Discover the tools used by professionals to craft unique gameplay features

Continue working on your game throughout the day

Conclude the game jam with an 'alpha testing session' alongside your fellow students & awards ceremony

The World of Cyber Security

Discover cybersecurity: an essential service for the security of nation states and businesses

Network Security and Hardware:

Analyse different hardware and the key parts elements of a network

Work in teams to design the most efficient network for an international company, Perform an in-depth analysis to identify all possible vulnerabilities in a company's system

Engage in a team simulation attacking and defending a system

The Fintech Forum

Learn about the world of financial technology and its impact on the UK techspace

Using your UI/UX skills, in teams, devise a trading app with a unique selling point

Work with entrepreneurs and financiers to build an app

Demonstrate a plan for your app

Receive feedback on your design and ideas from software engineers, bankers and entrepreneurs

Network with other ambitious students