

Immersive Experiences Days 1-5

Software Architecture

- Explore the first phase of the software development life cycle, software design
- Explore the principles and concepts involved in the analysis and design of large software systems
- Learn about the best approaches to conceptualizing software structure and constraints, and you master the art of software architecture patterns in object-orientated design

UX and UI

- Explore how colour and shape impact customer behaviour
- Find the strengths and weaknesses in a website's design and determine whether it will help or hinder the customer's user journey
- Become the UX designer: learn how to gather a client's requirements, build a prototype and pitch it
- Working with a prototype: learn the different approaches and techniques used when creating a new design

Front-End Engineering

- Explore the 'front-end' (also known as client side) of software engineering
- Discover the most important software-building tools: HTML, CSS, JavaScript and more
- Compete in teams to develop a front-end application for an exciting new start-up

Back-End Engineering

- 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 how to store data in a relational database and apply it in your full-stack project
- Learn common methodologies, tips and tricks to perform better when coding

Robotics and AI

- Meet the pioneers turning science fiction into reality
- Discover the different software used in robotics
- Examine the most high-functioning robots in existence today
- Learn the future of AI

- Discuss the moral dilemmas of robotics: can robots have a positive impact on society?
- Devise a unique application for robotics and automation

Immersive Experiences Days 6-10

Enter the Cyber Security Agency

- Discover cybersecurity: an essential service for the security of nation states and businesses
- Understand the threat of cyberattacks and the key steps you can take to protect yourself
- Secure the network of a tech giant: conduct an analysis of the company's security systems to identify vulnerabilities
- Anticipate future attacks and develop remediation strategies
- Advise the company's IT team by proposing improvements to their security system

The Game Jam

- Collaborate with video game designers as you compete in a 2-day Game Jam
- Script your very own game to take home and play using Unity/Scratch
- Develop your concept, decide the flow of your game and put your ideas into action
- Discover the tools used by professionals to craft unique gameplay features
- Present your game to industry-leading game developers and see if it has what it takes – the winning team will receive a professional mock-up of their video game to take home!

Become the Software Engineer

- Step into the shoes of a software engineer
- Compete in teams as you race to design your own health-tech app
- Present your projects to industry-leading professionals and get live feedback!

The Fintech Forum

- Pool together all the skills you've learnt as you team up with finance experts and entrepreneurs at InvestIN's 'Fintech Forum'
- Use your expertise to help develop a pioneering fintech app
- Display your team's project to industry-leading professionals at an exclusive Fintech fair
- Receive live feedback on your work from the experts and reflect on your team's performance

Networking Event with Top Software Engineers

- Take part in a private networking session with top software engineers, QA testers, UX/UI professionals and product managers
- Put your newfound knowledge to the test
- Have your burning questions answered by those in the know
- Receive valuable advice from experts in the field

Immersive Experiences Days 11-15

CAREERMAX

Over the next five days, we will prepare you to outperform others in the race to become a top software engineer. You will be given dedicated coaching on how to become a world-class professional in any industry, with training on the most crucial skills that universities and employers are looking for: public speaking, leadership, teamwork, problem-solving, communication, time management and negotiation. Expect hands-on, interactive activities led by professional development experts, to help turn you into a confident young software engineer, right now.

Leadership & Teamwork Coaching

- How you can build a high-performance team
- The most effective styles of leadership you can adopt
- What makes the ultimate team player?
- Inspiring and motivating others
- Leading vs managing

Leadership & Teamwork Challenge: work with your team to try and devise how to create a city fit for human habitation on Mars

Public Speaking & Communication Coaching

- Public speaking coaching by a specialist who trains CEOs
- Perfecting enunciation, tone, pace and body language
- How you can engage an audience and read the room
- The art of persuasion
- How to communicate effectively in a team environment
- Understanding emotional intelligence and using empathy

- Building strong interpersonal skills
- Influencing others
- Communication challenge: use your communication skills to guide a blindfolded team member to safety on an obstacle course
- Public speaking challenge: critically analyse public speaking performances

Negotiation Coaching

- Understand the art of negotiation and its importance
- How to identify when you are actually in a negotiation
- The typical stages of a negotiation
- Key negotiation styles
- Building relationships
- Key tactics: anchoring, tradeable concessions, commitment tactics, bluffing, injecting urgency, varying pace and more
- Negotiation challenge: enter a simulated hostage negotiation scenario. Work with your team to get the hostage released

Problem-Solving Coaching

- How you should approach problems and solve them decisively
- Analytical skills: identifying and structuring problems
- Creative and lateral thinking
- Effective decision-making
- Implementing solutions, analysing results and making changes
- Problem-solving escape room: work through a series of complex problems under time pressure

Time Management Coaching & Reflection

- How successful people manage time
- The time management quadrant
- Setting goals, prioritising, simplifying and re-evaluating
- The power of hyper-focusing
- Eliminating distractions
- Practising the '4Ds': doing, deferring, delegating and deleting

-Implementing solutions, analysing results and making changes

-Time management challenge: enter a humanitarian crisis simulation. Identify your goals, decide your priorities and execute them under time pressure