

A 12-week course to fast track your career and make a difference





SKILLS C/TY

Fair Access to Technology Futures

The IN4.0 talent academy is part of Skills City, an industry-led technology campus at MediaCityUK that's based on the values of fair access. We work in collaboration with employers and digital skills training providers at all levels to create a unique digital talent community that's accessible to all.

Welcome to the IN4.0 talent academy

Our objective at the **IN4.0 talent academy** is to future proof digital transformation within organisations by recruiting local graduates and developing them to drive technology adoption.

We nurture the most ambitious and diverse graduates and equip them with the knowledge and know-how to drive digital transformation through a unique professional development programme – the IN4.0 talent academy.

Graduates are introduced and matched to clients by our dedicated IN4.0 talent team at companies like BAE Systems. Training and development is then fully sponsored by employers and partners with no cost passed on to our graduates.

This is a unique opportunity for you to combine your academic skills and achievements with our bespoke blended learning programme.

Over an intense but rewarding 12 weeks, this will enable you to make an immediate impact in starting your career.

Because we train you in areas you feel truly passionate about, many of our graduates go on to achieve their ideal job in the technology sector.

Through fast track career development, successful graduates of the IN4.0 talent academy can go on to attain key leadership roles within 3 years.

The value of the training and benefits is in excess of £6000, but we're providing this for free to successful applicants. There are limited spaces available.

Secure your dream job with the IN4.0 talent academy

The IN4.0 talent academy pledge to you:



Interviews with sector leading companies matched to your ambitions.



Innovation project and industry knowledge transfer partnerships.



Employer and business networking and personal profile visibility.



High skilled and high paying roles with responsible and ethical employers.



A fast track career development that should see you in a leadership role within 3 years.



The ability to follow your passion and make a difference.



Personal skills development to make you the best version of yourself.



Technology and professional accreditations and certifications.



The ability to stay local – no need to uproot to find your dream job.



A dedicated mentor supporting you prior and through the first year of your employment.



Opportunities to progress into entrepreneurship.



Commitment to equal opportunities regardless of background.



Our partners and supporters

Funded by



Key contributors



Rachel Mutters, Talent Search and Skills Manager at IN4.0 Group

Rachel has over 12 years of experience in the student recruitment sector, with a particular focus on working STEM students and graduates. Rachel has also worked with a number of leading engineering and science employers, as well as acting as a Careers Manager within the Higher Education sector.



Kiran Arokiasamy, Project Consultant at IN4.0 Group

Kiran supports youth entrepreneurship networks, advising early stage founders and developing start up ecosystems. He has spent the last four year working with cutting edge technology companies across a variety of start up accelerators including LSE Generate, Entrepreneur First, Open Active and LMARKS.



Arun Kumar Manoharan, Associate Consultant at IN4.0 Group

With a degree in Aeronautical Engineering and a Masters in Business Analysis and Strategic Management, Arun now focuses on implementing disruptive innovation models, optimising manufacturing processes and delivering both quantitative and qualitative data models for better decision making.



Kelsey Brooks, Junior Engineer at IN4.0 Group

With a BSc in Audio Engineering, Kelsey is currently studying for her MSc in Computer Science and AI, specialising in Natural Language Processing and Computer/ Human interaction. She works extensively with charities and education providers to support young female engineers. She is also a qualified AWS Cloud Practitioner.



Alice Beveridge, Director of Tree of Knowledge

Alice has over 10 years experience hosting conferences, keynotes and workshops on themes such as Motivation, Leadership, Mindset, Change Management, Resilience, Empowerment, Engagement, Presentation and Communication Skills, Enterprise and Employability for the Education, Public and Private Sectors.



Sufian Kaki Aslam, Associate Professor at the Atria Institute of Technology

A graduate from Illinois Institute of Technology, Chicago with MSc in Electrical Engineering, specialising in Computers and Microelectronics. He is currently working on Atria IoT Labs, offering University programs from Google, AWS, Github and Arm to the student innovators.



Matt Simmons, eCommerce Geek at Sales Geek

Matt is Sales Geek's e-commerce Geek. From celebrity accounts to seven figure businesses, Matt has weaved his magic. Formally a lighting technician on the sets of Jersey Boys and Shrek the Musical, his specialist knowledge helps illuminate e-commerce businesses.



Erik Pollitt, Learning and Development Geek at Sales Geek

Erik's sales training CV reads like one you'd make up if only you had the imagination. Erik is the reason that customers return to Sales Geek again and again for training. With his help, Sales Geek are already on their way to becoming the best sales training provider in the UK.

IN4.0 talent academy syllabus

Technical learning

Computer engineering fundamentals

- Computer Architecture – uP, uC, SoC, SoM, FPGA
- Firmware & Operating Systems – Kernel, Bootloader, Device Tree
- Linux – Introduction, Terminal commands, File operations, Text Editors, Tools
- Networking – Topologies, Layers, Addressing, Standard ports
- Databases – Types, Commands, Use cases, Exercise

Cloud computing

- AWS ACF – Cloud Concepts
- AWS ACF – Core Services – Compute
- AWS ACF – Core Services – Storage
- AWS ACF – Core Services – Networking & Security
- AWS ACF – Core Services – Databases
- AWS ACF – Core Services – Balancing, Scaling & Monitoring
- AWS ACF – Cloud Security
- AWS ACA – Operational Excellence & Security
- AWS ACA – Reliability & Performance Efficiency
- AWS ACA – Cloud Economics & Cost Optimisation
- Cloud Services on MS Azure & Google Cloud
- Wrap-up & Cloud Practitioner Exam Readiness

Programming

- Python 1 – Syntax, Functions, Control Flow, Loops
- Python 2 – String, Lists, Dictionary, Classes, File IO
- Python 3 – Packages, Testing

Internet of Things

- Devices 1 – Sensing, Compute, Communication
- Devices 2 – MQTT, Power, Storage
- Activity 1 – Develop sensor applications communicating to Thingspeak, Thingsboard, MQTT broker
- Gateways – Frameworks (AWS IoT Greengrass, Home Assistant, WebThings)
- Activity 2 – Develop applications communicating to AWS IoT through gateway

Software tools

- Git – Basics, Commands, Features, Actions
- CI/CD with Github & AWS

Soft skills development

Flourish personal development workshop

This workshop will help you to build an environment where people can flourish by focussing on how people emotionally manage change and the five key elements of the PERMA theory (Martin Seligman).

Project planning workshops

During the project planning and action learning set workshops, we'll discuss and reflect on how to deal with a range of issues. Each session will address a different aspect of leadership or personal development.

What do you transmit?

Do you truly reflect the best version of yourself at all times? Discover how what you transmit can influence the perceptions of you and your team, and how it can be the difference when leading strategic or behavioural change.

Aspirational team workshops

This workshop will allow you to explore the characteristics of what makes a high performing team and reflect on where you and your team are right now and what action you need to take to improve.

Perform personal development workshop

We can all talk about how we want to act and behave but PERFORM asks you to put it into practice under pressure. This interactive day challenges delegates to explore the roles within a business, apply the theory of LEAN to a real-life situation and see how they can be disruptive in the pursuit of excellence.

Presentation skills

Using your project as a basis, you will learn how to plan, prepare and present your findings in a way that authentically transmits your VIBE. Employers are looking for more than just good grades, they need people who have a vast range of social skills too.

Interview ready

Shining in an interview is about more than just harnessing your presentation skills. It is about identifying your transferable soft skills, combining them with your industry knowledge and not being afraid to be disruptive and radical all while being grilled by an interview panel.

Self learning projects

- Amazon Alexa Skill Development
- Build a custom Linux OS for your Raspberry Pi
- Setup a File Server on your R Pi to share files and stream movies locally
- Build a DNS Server to route network traffic

Commercial projects

IN4.0 talent academy graduates will work on a variety of commercial innovation projects.

BAE SYSTEMS

20 of our graduates will work with BAE Systems on live innovation challenges. All projects will be developed using the Amazon Web Services platform and graduates will create prototypes that demonstrate value for a business use case. Projects include:

- Predictive maintenance for machinery
- Safe distancing smart devices
- Dynamic web applications

Sales training

The sales training track of the IN4.0 talent academy is designed to create and develop the next generation of technical and technology sales leaders. By completing the Sales Geek Academy sessions, you'll be equipped with the essential skills required to be successful with sales! Modules include: Killer prospecting and social selling secrets.



Fast track your career development with the IN4.0 talent academy

Be qualified to start a career as a Cloud Engineer, Digital Engineer, Pre-Sales Technical Support or Technical Sales Executive.

By completing the course you will offer employers the following core competencies:

Technical

- Understand and analyze problems with design thinking techniques
- Experience with building blocks of Cloud computing, networking, storage and security
- Exposure to architecting secure & scalable Cloud solutions
- Design and Development of solutions based on Internet of Things
- Hands-on experience with developing predictive maintenance and Industry 4.0 systems
- Develop Web applications and RESTful APIs
- Experience with software Version control & Continuous Integration / Continuous Delivery
- Familiarity with Microsoft Azure and Google Cloud in addition to hands-on experience on Amazon Web Services

Personal skills

- Identify your personal vibe, what you transmit to others and how to amplify the best version of yourself
- Develop your emotional intelligence, self-awareness and self-regulation and understand how they promote flourishing
- Understand the concepts of psychological flow and mindset and its application in the world of work
- Hone and develop your communication skills
- Develop interview and presentation skills that will help you transmit the best version of yourself
- Develop team working and collaboration skills imperative to success in the world of work
- Explore and apply solution focused thinking based on real, live business issues

Business

- Rapid prototyping to test Proof of Concepts (PoCs) for business use cases
- A methodological and logical approach in solving problems using data
- Innovate and design digital solutions to support business strategy
- Lead and advance innovation pipeline within the business
- Conduct market research to support in continuous improvement practices

Sales

- An in-depth understanding of the baseline skills to be successful, including: prospecting, active listening, creating value, objection handling and after sales support
- The confidence and skill set to begin turning prospects into rock-solid leads
- Building, growing and retaining a social media community
- Understanding how social media follows the sales cycle
- Up-selling and cross selling

Technical skills

- Operating Systems: Debian Linux, Raspberry Pi OS
- Programming Languages: Python
- Software: Git, AWS IoT Greengrass, MQTT
- Hardware Platforms: Raspberry Pi, Arduino Uno, Espressif ESP32

Projects

- Tier 1 Advanced Manufacturing Industry 4.0 Projects
- Predictive Maintenance using AWS IoT and AI/ML services
- Load balanced and Auto scaling Web Application
- Health & Safety – COVID 19 Safe working IoT / Cloud Apps

Certifications

- AWS Cloud Practitioner
- Eligibility for progressing chartership with the Institute of Engineering and Technology



