



# SKILLS CITY

Fair Access to Technology Futures



# DATA ANALYTICS SKILLS BOOTCAMP

## TRANSFORM YOUR FUTURE WITH EXPERT TECH TRAINING



### Course Structure

You will engage in a variety of activities each week, including taught classes, workshops, personal learning and group projects. Throughout the bootcamp, you will gain knowledge and support through sessions and modules including:

Technical Sessions

Guest Speaker Talks

Mock Interviews

In-Person Networking

Technical Workshops

CV & Job Application Support

Personal Development

Careers & Employability Workshops

Capstone & Industry Projects

Interview Preparation

This 12-week Skills Bootcamp is designed to help people with no prior tech knowledge become skilled data analysts and enter the workforce.

### Sample Timetable

| Day       | 09:30 - 15:00  | 15:00 - 16:30   |
|-----------|--|-----------------|
| Monday    | Careers Experiences                                  | Self-Study Time |
| Tuesday   | Introduction to Python Programming                   | Self-Study Time |
| Wednesday | Introduction to Python Programming                   | Self-Study Time |
| Thursday  | Careers Session & Introduction to Python Programming | Self-Study Time |
| Friday    | Project Work   | Self-Study Time |

## Week 1 | Induction Day

Introductions and managing expectations

### Introduction to data analytics and basic Excel

- Overview of data analytics and its applications
- Getting started with Excel: The interface, data entry, and basic functions
- Getting started with Excel: Formulas and operations
- Data cleaning and data quality
- Introduction to charting in Excel

Practical exercises with case studies

## Week 2 | Intermediate Excel

- Logical functions and lookup functions
- Introduction to PivotTables
- Intermediate charting and data visualisation in Excel
- Data validation and conditional formatting
- Intermediate Excel Capstone Project: Analysing sales data

## Week 3 | Data Storytelling and Visualisation with Power BI

- Data modelling and visualisation in Power BI
- Advanced reporting and dashboarding in Power BI
- Project work

Practical workshop with real world case study

## Week 4 | Introduction to SQL and Databases

- Database fundamentals
- Basic SQL queries
- Sorting and filtering
- Aggregations and grouping
- Introduction and complex joins

Practical workshop with real world case study

## Week 5 | Introduction to Python for Data Analysis

- Python basics: Syntax, variables, and data types
- Control structures: If-Else statements, loops
- Functions and modules in Python
- Introduction to Pandas and DataFrames
- Data import/export with Pandas

## Week 6 | Data Cleaning and Manipulation with Python

- Data cleaning techniques in Pandas
- Data manipulation: Filtering, sorting, grouping
- Introduction to data visualisation with Matplotlib
- Basic data visualisation with Seaborn
- Python Capstone Project: Data cleaning and visualisation with a real-world dataset

Practice of Python and Pandas in data analysis. Bring together previous concepts about data cleaning and manipulation to Pandas.

## Week 7 | Exploratory Data Analysis (EDA) with Python

- Descriptive statistics and data summarisation
- Understanding distributions and outliers
- Correlation and causation basics
- Introduction to hypothesis testing
- Project work

## Week 8 | APIs with Python

- Understanding APIs
- Accessing and consuming APIs in Python
- Advanced API features and best practices
- Project work

Self-study and advanced topics in preparation for the project. The topic studied will vary and depend on what the project brief focuses on.

## Week 9 | Introduction to Predictive Analysis and Machine Learning

- Introduction to machine learning
- Project work

Self-study and advanced topics in preparation for the project. The topic studied will vary and depend on what the project brief focuses on.

## Week 10 | Advanced SQL

- Subqueries
- Set operations
- Window functions and advanced aggregations
- Data types and functions in SQL
- Advanced SQL Capstone Project: Database querying for business intelligence

## Week 11 | Leveraging Cloud Technologies for Data Analytics with Azure

- Introduction to Cloud Computing and Azure
- Data analytics on Azure
- Project work

Self-study and advanced topics in preparation for the project. The topic studied will vary and depend on what the project brief focuses on.

## Week 12 | Project Submission and Presentations

### Week 12+

### Graduation Ceremony

### Job Support sessions



# CAREERS SUPPORT TO SKILLS CITY STUDENTS

## Qualifications



Bootcamp graduation credly badge offered by Skills City on successful completion of the bootcamp



Data Analytics Essentials credly badge offered by Cisco on successful completion of the bootcamp

[Find out more](#)

## Job postings

We communicate regularly with our clients and share their job postings with our students. We also find jobs from external job posts suitable for graduates from each bootcamp pathway and at the correct level for them to secure.

## CV/application support

We ensure students' CVs are up to standard and provide feedback, support, and guidance on improving their applications. This includes reviewing their CVs and applications and providing feedback on how to tailor them to specific job opportunities.

## Interview preparation

We offer advice on researching the company and hiring manager, preparing examples using the STAR method, practising timings and answers, choosing appropriate attire, and arriving on time. We also advise how to make a positive first impression and prepare 2-3 questions to ask at the end of the interview.

## Mock interviews

Our mock interview sessions are designed to provide general interview practice and help students improve their confidence and communication skills. We also share online resources for technical interviews to help students prepare for them.

## Networking opportunities

We help students connect with potential employers when the opportunity arises.

## Personalised team calls

We arrange team calls with students who are particularly struggling and would like support or encouragement through their career change process. It is not a common occurrence, but we offer support where we can.

## Follow-up

Additionally, we follow up with students after learning they have had an interview to see how it went and if we can offer further support. We aim to empower students to succeed in their career journey while providing support on a case-by-case basis as needed.



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