SUMMER SPRINGBOARD
Look Inward. Go Upward.

Data Analytics Online

New student admissions for Summer 2023 are open.

Track Highights

- Conduct exploratory data analysis in Python including how to clean and pre-process data for visualization.
- Perform data visualization in Python using packages such as, seaborn, ploty, matplotlib, and ggplot2.
- Build and implement an interactive Python web-based data analytics dashboard.
- Learn how to develop insights from the data analysis, and create practical takeaways for organizational decision-makers.
- Develop teamwork skills and collaboration with other in the diverse group settings.
- Explore different problem-solving methodologies, implementing hypothesis-driven analysis and critical thinking skills.

Academic Program Overview

As the world's volume of data increases and data storage becomes cheaper and faster, the value and need for skilled employees to capture and intrepret all of it will continue to explode. In this innovative college-level course in partnership with iXperience, students will learn how to grow their abilities to communicate data effectively through the use of data visualization and modelling. Students will get a chance to work on the powerful tools that data analysts use that enable better decision-making. This course will bring together technology, mathematics, and problem-solving skills for students to evaluate data and extract meaningful insights from it to assist in driving real business value. It is perfectly designed to help high schoolers gain real world knowledge and experience before committing to a Data Analytics career path. You will get the opportunity to apply your newly gained skills to a hands-on project. While specific briefs vary from course to course, all of the projects are selected to perfectly complement the skills covered in class and enable students to make a real-world impact.

2023 Dates

Session 2: July 3 - July 13:
6:00 - 9:00 AM PT / 9:00 - 12:00 PM ET

Instructor

TBD

Previous instructor and industry specialist for this course was Dr. Claire Davis-Reddy. Dr. David-Reddy is the Data Science Team Lead at the South African Earth Observation Network (SAEON) – a long-term environmental monitoring facility of the National Research Foundation (NRF). Her primary directive as Team Lead is to improve South Africa's open data products, atlas portals and visualization tools in order to facilitate effective data- and evidence-driven decision-making.

Claire has a PhD from the University of Stellenbosch specializing in the fields of remote sensing, vegetation modeling and climate change. Her PhD research investigated the dynamics of vegetation phenology and productivity over Sub-Saharan Africa in response to climate variability and change and how this information can be used to strengthen the ability of Dynamic Global Vegetation Models (DGVMs) to predict vegetation change. Her PhD research provided input into the first African-based Earth System Model, the Variable-resolution Earth System Model (VRESM). Before joining SAEON, Dr. Davis-Reddy was a Senior Researcher at the Council for Scientific and Industrial Research where her research contributed significantly to the understanding of climate change risks and impacts in Southern Africa.

Real-World Class Project

In this course, students will work in groups while undertaking a project for a real-world assigned client. The students will use different problem-solving methodologies and their initiative to conceptualize social impact-driven solutions for their client. Previous project partners have included Inetum, a company headquartered in Paris, France, with a Data Science and Analytics unit office located in Lisbon. Students in this course previously worked with Inetum's Data and Analytics lead on a real world project that involved analyzing data related to spending patterns of consumers in two Lusophone countries that assisted their client with the development of new strategies to narrow the profitability gap in their operations.

In addition to the real-world project, students will be able to:

- Explore how to use different problem-solving methodologies, implementing hypothesis-driven analysis and critical thinking skills
- Learn how to use initiative to conceptualize social impact-driven solutions for organizations, in the absence of full information, while solving for complex problems
- Learn how to grapple with complex global issues and developments and their implications for the future
- Gain teamwork skills and the ability to collaborate with others in a diverse group setting
- Apply what you learn in the classroom in the real world project experience
- Gain invaluable soft skills necessary to excel in the workplace while working in an international culture

Program Information

This program is open to any high school student who will be entering freshman, sophomore, junior or senior year in Fall 2023. Space is limited. Each session is limited to 35 students per track. Online classes will be held via Zoom and facilitated in real-time by the instructor and a classroom coordinator.

Payment Information

- Price: $1,798
- Application fee: $99 (mandatory, non-refundable)
- Emergency Medicine & Pre-Med course supplement: $250 tuition (mandatory)

Course Structure

- Week 1: Students will kick off their week with an introduction to data analytics, then move on to data analytics process and obtaining data. They will then learn about data wrangling and exploring data with a brief statistics refresher, and then finish the week learning about visualizing data.

- Week 2: In their second week, students will learn more about data storytelling and presenting data with impact. Students will then work with time series and text and data dashboards. Their second week will culminate with a final presentation.