Community Data Science

Program overview and requirements (Gr. 9-12; Spring 2023)

Description

The Community Data Science program is a series of eight virtual workshops that run from 10-11:30 am every Saturday between March 4-Apr 29, 2023 (except for the Apr 8 long weekend). In this workshop, students will learn how to explore, pre-process, visualize, and analyze a publicly available dataset using Python. Students will also participate in discussions on ethics of data science. Some programming experience is required to participate in this workshop. All workshops will be offered virtually via Zoom.

Program schedule

Date: Mar 4, 11, 18, 25, Apr 1, 15, 22, and 29 (Saturdays)
Time: 10-11:30 am
Location: Online via Zoom
Student: Trans and cisgender women, non-binary and Two Spirit students in Grade 9-12
Cost: Free

Date & time	Workshop
Mar 4 (Sat) 10:00-11:30 am	Intro to data science Python basics
Mar 11 (Sat) 10:00-11:30 am	Data exploration and wrangling
Mar 18 (Sat) 10:00-11:30 am	Ethics in data science Descriptive statistics
Mar 25 (Sat) 10:00-11:30 am	Data visualization
Apr 1 (Sat) 10:00-11:30 am	Inferential statistics
Apr 8 (Sat)	No workshop on the long weekend.
Apr 15 (Sat) 10:00-11:30 am	Research topic I
Apr 22 (Sat) 10:00-11:30 am	Research topic II
Apr 29 (Sat) 10:00-11:30 am	Show-and-tell Graduation ceremony

Additional information

- The progress of covering the concepts above will depend on the pace of the class.
- Meeting links will be open at 9:30 am, which is 30 minutes before the start time, for students who wish to test their setup (e.g. is my audio working?).
- Students can join the workshops at 9:30 am, which is 30 minutes before the start time, and/or instructor office hours (11:30 am-12:30 pm after each workshop) to ask questions and get feedback about their own projects if they decide to work on one in their own time.
- Family members and friends are welcomed to join the final presentation.

Sign-up link

http://websurvey.sfu.ca/survey/441802144

The deadline to sign up is Monday, Feb 27 at 11:59 pm. A confirmation email with more details and a Zoom link will be sent out by Tuesday, Feb 28 at 5:00 pm.

Workshop requirements

- Internet access
- Laptop/Desktop computer
- Google account with Google Colaboratory installed. We will be using Colab notebooks for this workshop series.

Contact

If you have questions, please do not hesitate to contact Eva at sacoord@sfu.ca.

Virtual Community Guidelines

Welcome to the Community Data Science program offered virtually by the SFU Applied Sciences Outreach! We are so excited that you have decided to join us. Our mission is to inspire, encourage, and support youths of all backgrounds to explore the many topics related to science, engineering, and technology through interactive and engaging activities. Before you join us, there are some guidelines we need everyone to follow to maintain the safety of everyone involved. See below for our Virtual Community Guidelines.

Personal Safety: We take safety seriously. If harm is disclosed or discussed (harm to self, or harming others) then we will take the appropriate steps to ensure your continued safety and the safety of those around you. Threats about others personal safety will not be tolerated.

Respect: Treat those online as you would treat them in-person that is with respect, dignity, and care.

No Hate Speech or Bullying: Bullying, discrimination, and harassment of any kind will not be tolerated.

Communication: Communication is encouraged in this workshop. Communicate with respect and listen to others when they speak or share ideas, which includes when sharing ideas out loud or via the chat function. Mute your microphone when not speaking and only turn your video on if you feel comfortable to do so.

Privacy: Respect the privacy and personal information of those in the shared virtual space by not sharing information that is not your own. Respect your own privacy by not sharing any personal information with those you do not know. Sharing of the Zoom link with those outside of the specific intended group is strictly prohibited.

Copyright: There will be no recording of anything that happens in this space, which includes participants and instructors taking pictures, recording parts of the workshop or recording their screen during any part of the workshop.

By joining the Community Data Science program, you are considered to be in agreement with the above community guidelines. We will take the appropriate actions if any of the above guidelines are violated. Depending on the situation, this may result in revoking participation in the remaining workshops. Thank you in advance for your commitment to keeping our programs engaging, safe and of course, fun!

Meet your instructors

Karly Kussainova
Master's student in Computing Science

For her undergraduate thesis, Karly focused on classifying the Brain Tumour based on MRI images. She's currently working on analyzing the market of NFTs based on Machine Learning. In her spare time, she trains Brazilian jiu-jitsu and takes care of a cat.

Neha Sharma
PhD candidate with research interests in multimedia networking, computer vision and machine learning

Neha's current research focuses on hyperspectral imaging using deep learning models for mobile applications. She enjoys travelling to different places with family and friends. In her free time, she loves to paint and watch movies.