# **Consent to Take Part in a Research Study**

Q1.1.

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Research Study Consent

Title of research study: Data science workshops for biomedical and health

professionals: Persona identification and workshop assessment

Principal Investigator: Anne M Brown, PhD

Other study contact(s): Daniel Chen

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Substudy: Workshop Assessment Questions (Sign-Up)

**Key Information**: The following is a short summary of this study to help you decide whether or not to be a part of this study. More detailed information is listed later on in this form. This confidential survey is intended to identify key characteristics of learners attending a data science workshop geared towards medical and biomedical practitioners. Your responses are anonymous and will become part of summary data included in a report that is compiled by Daniel Chen from the Genetics, Bioinformatics, and Computational Biology (GBCB) PhD program at Virginia Tech.

Detailed Information: The following is more detailed information about this study in addition to the information listed above.

#### Who can I talk to?

If you have questions, concerns, or complaints, or think the research has hurt you, talk to the research team at Anne Brown (ambrown7@vt.edu) or Daniel Chen (chend@vt.edu).

This research has been reviewed by the Virginia Tech Institutional Review Board (IRB). You may communicate with them at 540-231-3732 or irb@vt.edu if:

You have questions about your rights as a research subject Your questions, concerns, or complaints are not being answered by the research team You cannot reach the research team You want to talk to someone besides the research team to provide feedback about this research.

### How many people will be studied?

We plan to include about 100-150 people in this research study.

# What happens if I say yes, I want to be in this research?

Once you consent to participate in this study, you will follow a next arrow to the study survey and begin by answering some population-specific questions. One of these questions will include creating a unique identifier which will be used for future surveys in this study. This unique identifier will also be used to remove your data if you choose to not remain in the study.

From there, you will be enrolled into the study and will continue on with the workshop. Throughout the workshop you will be asked to work on an example coding problem related with the materials presented. These questions will be given out as separate surveys. You will be first presented with a page for you to input your unique identifier, and then the following page will have the question for you to work on. You are free to use any resouce available to you.

When you are either done with the question, or do not want to try anymore, you can copy/paste whatever code you have into the survey textbox and the following page will end that portion of the study. Each question should take 2-5 minutes to complete.

At the end of the workshop, you will be presented with 1 final question problem, copy/pate your final solution into the textbox. When you submit this solution the study will be over.

Your responses in this survey will be used to assess the quality of a workshop and its learning materials. The researchers will then take feedback from the workshop to improve materials for each type of learner. You have the option to provide feedback without having your data used in the final research analysis report.

This information will be used to improve the workshop materials, workshop exercises, and give instructors a sense of who is attending the workshop and what needs learners need before, during, and after the workshop ends. It will also help determine what kind of workshop and exercise question is better suited for each kind of learner.

This consent form can be taken anywhere. Workshops are planned for Fall 2021.

Your responses from this survey will be matched up with the solutions in the workshop exercises, using your de-identified ID.

This study is designed so that individuals will take a student self-assessment prior to workshop creation. A separate set workshops are delivered, pre and post assessment will be performed on each workshop. A subsequent long-term survey may be issued.

This part of the study teaches a subsection of the workshops, and mainly

focuses on the exercise questions during the workshops (i.e., summative and formative assessment questions). You are invited to participate in any of the surveys as well as the current student self-assessment.

Your de-identified (anonymous) survey responses will be shared on an open science platform such as the Open Science Framework (https://osf.io/), GitHub (https://github.com/), Zenodo (https://zenodo.org/), and/or VTechData (https://data.lib.vt.edu/).

### Q1.2.

## What happens if I say yes, but I change my mind later?

You can leave the research at any time, for any reason, and it will not be held against you.

If you decide to leave the research, you can discontinue filling out the survey by closing your web browser. Incomplete responses will not be used in the data analysis. If you already filled out the survey and wish to withdraw your participation, please let one of the study investigators know You can decide to pull all your information from analysis, or only withdraw from any follow-up surveys. If you decide to leave the research, no consequences will occur.

# Is there any way being in this study could be bad for me? (Detailed Risks)

During the process of completing the surveys, you will be asked questions about a data problem that requires programming to solve. If there are any questions you would rather not answer or that you do not feel comfortable answering, you can move on to the next question.

There is minimal risk the by being a part of this study you could experience physical, psychological, privacy, legal, social, economic, or emotional distress given the subject of the survey.

This study is not meant to gather information about specific individuals, and the information you provide will be combined with that of other survey participants to gather information.

### What happens to the information collected for the research?

We will make every effort to limit the use and disclosure of your personal information, including research study and medical records, only to people who have a need to review this information. We cannot promise complete confidentiality. Organizations that may inspect and copy your information include the IRB, Human Research Protection Program, and other authorized representatives of Virginia Tech.

Your de-identified (anonymous) survey responses will be shared on an open science platform such as the Open Science Framework (https://osf.io/), GitHub (https://github.com/), Zenodo (https://zenodo.org/), and/or VTechData (https://data.lib.vt.edu/).

Your data could be used for future research studies or distributed to another investigator for future research studies without your additional informed consent.

The results of this research study may be presented in summary form at conferences, in presentations, reports to the sponsor, academic papers, and as part of a thesis/dissertation.

# Can I be removed from the research without my OK?

The person in charge of the research study or the sponsor can remove you from the research study without your approval. Possible reasons for removal include incomplete responses.

## What else do I need to know?

Any expenses accrued for seeking or receiving medical or mental health treatment will be your responsibility and not that of the research project, research team, or Virginia Tech.

Are you at least 18 years of age?

Yes. I am 18 years of age or older.

No. I am not at least 18 years of age.

Do you agree to participate in the research study?

Yes. I have read the consent form and this response will serve as my consent to participate in the research study

No. I do not want to participate in the research study.

Would you like to provide pre-workshop feedback? Your responses would not be used for the research study.

Yes. I would like to provide feedback about the workshop and its learning materials

No. I do not want to provide feedback.

Q1.3. Are you at least 18 years of age?

Yes. I am 18 years of age or older.

O No. I am not at least 18 years of age.

Q1.4.
Do you agree to participate in the research study?
O Yes. I have read the consent form and this response will serve as my consent to participate in the research study.
O No. I do not want to participate in the research study.
Demographics
Q2.1.
Hello:

Thank you for participating in the "Data Science for Medical and Biomedical Practitioners" workshop.

This is the learner's Exercise Assessment pre-workshop survey.

This survey helps determine workshop material efficacy for individuals to learn data science in the biomedical and health fields.

These survey results will allow us to create materials specific to needs of the group.

# Q2.2.

Please create a unique identifier. This unique identifier will be used to like your survey responses but keep your personal information anonymous.

To create an identifier type in:

• Number of siblings (as numeric) +

- First two letters of the city you were born in (lowercase) +
- First three letters of your current street (lowercase).

E.g., (Sherlock Homes has 1 brother, was born in Porsmouth, and lives	on
Backer Street - 1pobac)	

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