Computers can be part of the solution to each of these Sustainable Development Goals.
Solving problems of social value

- Computers are a tool to change the world
  - Programming is how you get full control.
  - We can help people.
Topics

1) Who’s Dr. Brian?
2) What’s in CMPT 130?
3) Who are the students?
4) How do I succeed & connect?

ENIAC computer - 1945
Who’s Dr. Brian?
Dr. Brian (Fraser) (he/him)

- I love questions and feedback!
About Me

- **Love Teaching:** I can help share my excitement for programming, and for making the world a better place.
- **Degrees:** BSc & PhD from SFU (AI)
- **Favourite Video Game:**
  StarCraft 2, WoW, Valheim, Mario Kart
- **Family:** Married with 2 girls (7y & 9y)
- I recognize that I am **privileged** to be in my position with **many advantages afforded** to me throughout my life.
  - I work to build a **positive inclusive experience** for everyone.
Course Expectation

**Only one thing**

- Use a positive tone for all communication (asking questions, on Piazza forums, with TAs)
- Anon trolling hurts and won’t be tolerated
- Students have wide range of backgrounds; respect it

**If sending a message**

- Give a little context (class, your name, topic, ...)
- Email: If you are sending more than 2 per week on average, over multiple weeks, it may be too many.

http://tinyurl.com/briansfu/cmpt130/
What’s in CMPT 130?

http://tinyurl.com/briansfu/cmpt130/
Course Topics

- **Basic Course Goal**
  - Solving problems of social value
  - Thinking through problems: Programming in C++
  - Simple data structures
  - Algorithms
Flipped Classroom

- **“Notes” Videos**
  - Pre-recorded videos; posted by Monday
  - You should watch these *before* class (1-2h)

- **Lecture (M/W/F) - Live Coding / Activities**
  - Interactive coding and activities to engage content
  - Recorded and posted online

- **Labs**
  - Guided activities; one per week to get started

- **Assignments**
  - One every 2 weeks
  - Practice applying skills more independently

http://tinyurl.com/briansfu/cmpt130/
2 Week for Assignments

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Next Wed: Quiz on previous assignment

Last day to hand in assignment (4 days late; 0% penalty)

http://tinyurl.com/briansfu/cmpt130/
Weekly Expectations

- **3 Units** = ~10 hours / week

- **Your week might look like:**
  - Sunday: watch videos 1h
  - Monday: lecture 1h
  - Tuesday: try assignment, watch video 2h
  - Wednesday: lecture + labs 2h
  - Thursday: try assignment, complete lab 2h
  - Friday: lecture 1h
  - Weekend: try assignment 1h

http://tinyurl.com/briansfu/cmpt130/
Assignments

• Programming is like driving a car:

• ~6 Assignments
  – They tell you what to do, not how; you write code to solve the problem
  – You can’t really say you know the course material unless you can do (re-do?) the assignments well!

• Generative AI
  – You may use AI tools to help (ChatGPT/Copilot/…)

• It’s cheating to submit someone else’s work
  – We check carefully & apply stiff penalties
  – It’s also cheating to submit you previous work again

http://tinyurl.com/briansfu/cmpt130/
Evaluation

- **10% Labs**
  - Most weeks (starting next week)
  - Attend any section(s)! (or none?)
  - **Submit lab online** by Sunday; completion marks

- **35% Assignments + Quiz (~6)**
  - Assignment due about every 2 weeks; on Sunday
  - Following Wednesday has a short in-class quiz
  - Quiz limits (or scales?) your grade on the assignment; such as Credit = minimum of (assignment mark, quiz mark)

- **20% Midterm**
- **35% Final**

http://tinyurl.com/briansfu/cmpt130/
Who are the students?
How are you feeling?
You already known:

- How to use a computer and the web.
  - You are comfortable using directories/folders to find, create, copy and edit files.
  - You can check email and browse the web.

- You are eager to learn programming
  - Course is a rigorous introduction to programming.
  - It assumes no previous programming experience, nor experience with Linux.
  - Expect to put in a strong effort to learn programming.
Real-time Stand-up Survey

- Everyone stand up!
- **How much programming have you done?** (in any language)
  - None?
    - This is the right class for you to start your journey!
      Have a seat.
  - Some experience, but not a lot?
    - This is the right class for you to build your skills!
      Have a seat.
  - A lot!
    - This is the right class for you to help others!
      Have a seat.
- Lecture is for participation for everyone.
Growth Mindset

- Programming is skill a person develops; not one they were born with.
  - Nobody was *born* being good at C++.
  - Nobody was *born* being bad at C++.
  - Everyone good at C++ has worked hard and learned it.

- Computer Scientists learn helpful dispositions such as:
  - Collaborative
  - Inventive
  - Persistent
  - Meticulous
  - ...
How to Succeed
+
Make Connections
Stay home sick

- **Stay home when needed**
  - Feeling a little sick?
    Covid, cold or the flu!
    You should stay home
    and watch the video too!

- If I’m sick, I’ll cancel lecture, present remotely, or record a video
Guide to Slides

• **Slide Colour Guide (often...):**
  - **Green:** headings.
  - **Yellow:** Highlighted text.
    - Course has: midterm, quizzes, & final.
  - **Blue:** Term being defined.
    - **Hour:** 60 minutes.
  - **Sweep-in Text:** Blanked out text.

• **Joke:**
  - There are 10 types of people in the world...
Advice

- **Previous Students have said about this course**
  - Useful, *practical course*;
    May help you *love programming*
  - *Easy start*, gets really challenging really fast
  - *Time consuming* assignments
  - *Tough but fair* exams
  - *Live long and prosper*  
    (Star Trek: technology for social good?)
Connecting

• **Connect with Me**
  - Come chat after class
  - Come to Lunch with Dr. Brian

• **Connect with Help**
  - Come to lectures & labs
  - Come to “Gathering Hour”
    (in-person office hour in a big room for everyone)
  - Come to my & TA online office hours (Discord)

• **Start connecting early**

• **Start your assignments early**
Meeting Someone!

Start chatting in groups of 3-4
- Exchange names and contact info (email/discord/whatsapp/instagram/X/?)
- Discuss the following:

1. What is the best thing computers have been used for?

2. What is the worst thing computers have been used for?