COMPUTER SCIENCE UNIT I WEEK 1, TUESDAY APR 17TH + THURSDAY APR 19TH

WWW.CITA.UTORONTO.CA/~WOODFORD

WOODFORD@CITA.UTORONTO.CA

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THIS WEEK IN CS AND STEM

- A new (and definitely more functional) body mod
 - <u>https://futurism.com/early-cancer-detection-artificial-mole/</u>
- TESS launch
 - <u>https://futurism.com/tess-telescope-exoplanets-launch/</u>

- Biometric Arrest
 - <u>https://futurism.com/fingerprints-identified-criminal/</u>
- Not quite fully automated
 - <u>https://futurism.com/musk-automation-bad-idea/</u>

UPCOMING PUBLIC LECTURES

- History on Stage: Bringing Ancient Rome to Life, Tuesday Apr 24th 7pm (<u>https://www.rom.on.ca/en/whats-on/history-on-stage-bringing-ancient-rome-to-life</u>)
- AstroTours, Thursday Mat 3rd 8pm (<u>http://www.astro.utoronto.ca/astrotours/</u>)
- Climate, Energy, and Policy , ROM SPEAKS Tuesday May 8th 7pm (<u>https://www.rom.on.ca/en/whats-on/climate-energy-and-policy</u>)

FINAL PROJECTS

- 3 different project descriptions, you need to:
 - Complete the coding, using all of the skills we've learned
 - Write user documentation
 - Write a report
 - Give a 10 minute presentation showcasing your work (last day of classes, June 5th)
- Due dates:
 - Pick your project (1 of the 3 given): April 3rd tell me in person or in email!
 - Update your github account regularly as you add sources, make changes, and code.
 - Submit Report, code, supporting documents: June 4th at midnight
 - Give presentation: June 5th in class

STUDENT-LED LESSONS

- The last 2-3 classes will be based on what YOU want to learn about relating to Computer Science.
- Aim for $1/3 \frac{1}{2}$ class per student, maximum of 2 topics per student.
- Send your topics to me by May 15th. Looking at May 24, 29 for topic discussions.

WHAT IS COMPUTER SCIENCE?

• Is there one or many categories? Is there a singular definition?

BREADTH OF COMPUTER SCIENCE

 So far we've discussed a lot about computer science and tech. We've programmed, learned some of the consequences and codes of conduct in computer science and tech, as well as a little history. But is computer science a stand alone discipline?

CAREERS IN COMPUTER SCIENCE

- From all the fields we've mentioned within and using computer science, there are a number of career options that fall within computer science.
- Some of the most common ones include:
 - Software developer
 - IT specialist
 - IT consultant
 - Data/applications analyst

THERE'S MORE THAN ONE WAY TO TRAIN!

- Different universities have different opportunities for students interested in computer science. Some institutions support mixed majors, undergrad research or work-place placements, and substantial courses in subcategories of computer science.
- Regardless of what program you choose, always look for research and work placement opportunities in your field of interest!!! (Co-ops, internal posting, etc – also don't be afraid to talk to your professors once you've built repour to ask them about working in their labs or on their projects).

RESEARCH IN COMPUTER SCIENCE

• From what you know, what do you think are the major areas of research in computer science?

SPECIFIC AREAS OF INTEREST

- Robotics
- Digital Humanities

• What do these require? What skills have we already learned that could play a role in these fields?

WHAT INTERESTS YOU?

- We're not deciding your destiny here but even cursory interests can be rewarding.
- What are you thinking about pursuing? Does computer science play into it? If not directly, could it play in indirectly?

REFERENCES

- https://umaine.edu/cs/what-is-cs/
- https://www2.eecs.berkeley.edu/Research/Areas/CS/
- <u>https://www.prospects.ac.uk/careers-advice/what-can-i-do-with-my-degree/computer-science</u>
- <u>http://careers.yorku.ca/my-degree/computer-science/</u>
- <u>http://web.cs.toronto.edu/research/areas.htm</u>
- <u>https://www.ri.cmu.edu/research/</u>
- <u>http://shc.stanford.edu/digital-humanities</u>
- <u>http://digitalhumanities.berkeley.edu/projects</u>
- <u>http://wdw.utoronto.ca/index.php/programs/digital humanities</u>