A list of resources for humans, especially for underrepresented and minority groups in mathematics

- Terence Tao's <u>blog on career advice</u> for high school students, undergraduate students, and graduate students in mathematics. This blog has valuable advice for all students, prospective students, and researchers in mathematics. He highlights that to do mathematics, one **does not have to be a genius**; but rather has to <u>work hard</u>, <u>learn one's</u> field well, ask questions, talk to other mathematicians, and think about the *big picture*.
- Francis Su's book <u>Mathematics for Human Flourishing</u> and a <u>lecture</u> that highlights many of the ideas in his book (there is also a shorter <u>prelude here</u>). He emphasizes the fact that mathematics is for everyone, and its beauty is farreaching.
- In the same vein as Francis Su's book, it is important to remember that mathematics can reveal its beauty to any human. Here is a video on the power of belief and "growth mindsets"; a growth mindset (coined by Carol Dweck) is important to keep in mind for any mathematics endeavour. The fact that mathematics can be learned by anyone is reiterated by neuroplasticity research. This study found that among all age groups, the brain changes and grows new neural pathways through learning, so that no person could ever estimate another individual's potential for learning and thriving in mathematics.
- Math is for all. Here is an <u>Instagram page</u> highlighting different thriving humans each week in mathematics and computer science.
- On <u>Mathematically Gifted & Black</u>, The Network of Minorities in Mathematical Sciences showcases Black mathematicians and their accomplishments. Read about those in the <u>circle of excellence</u>, <u>rising stars</u>, and they have a nomination feature to nominate a Black mathematician for their awards.
- The <u>Mathematicians of the African Diaspora</u> features a list of the <u>greatest Black mathematicians</u>, <u>Black women in</u> <u>math sciences</u>, <u>recent Black math PhD graduates</u>, conferences, and more resources for Black students and researchers.
- My favourite theorem: a podcast that showcases mathematicians and their favourite mathematical results.
- The blog <u>The Accidental Mathematician</u> features posts by Izabella Laba. She discusses mathematics, academia, gender, and other social issues.
- <u>Latinxs and Hispanics in Mathematical Sciences</u> is an organization dedicated to increase the visibility of Latinx/Hispanic mathematicians. They honour a Latinx mathematician each day and also feature Latinx mathematicians on their weekly podcast.
- <u>Spectra</u>, *The Association for LGBT Mathematicians*, provides both visibility and a virtual <u>board</u> for LGBT mathematicians to network. They also host various <u>events</u> throughout the year.
- Federico Ardila's article on <u>Cultivating Diversity in Combinatorics</u>, among other important topics, outlines axioms for doing mathematics, including "Everyone can have joyful, meaningful, and empowering mathematical experiences."
- Cathy O'Neil's <u>math blog</u> discusses mathematics (including a helpful list of <u>books</u>) as well as using mathematics on a broader scale to *make the world a better place*.
- <u>Chalkdust magazine</u> is a magazine for the mathematically curious. They published a <u>Black mathematician month</u> in October of 2017, 2018, and 2019, featuring an article by Jonathan Farley in 2017 titled "<u>The kind of problems Black mathematicians wish didn't need solving</u>."
- Piper Harron's unique mathematics <u>PhD thesis</u> was written with every human in mind. She uses humour, common language, and enthusiasm to express her ideas. Here is her <u>blog</u> and an <u>interview</u> where she discusses her revolutionary thesis.
- The <u>Association for Women in Mathematics (AWM)</u> has resources for both <u>undergraduate</u> and <u>graduate</u> students; including access to mentors, advice (e.g., <u>How to succeed in graduate school</u>), internships, fellowships, grants, and other programs.

This list was compiled by <u>graduate students</u> in the mathematics department. For inquiries, suggestions, or comments, please contact <u>mtarkesh@uwo.ca</u>.