Celebrating Black Computer Scientists

{CODING TEAM}

Compiled by Jiin Jeong '21 & Khuslen "T" Tulga '23 | February 2021: Black History Month Edition

In honor of the Black History Month, this newsletter aims to redress the balance, recognizing the achievements of black computer scientists.

History

1953

Katherine Johnson

Physicist & mathematician, worked as a "human computer" at NASA, doing calculations essential to the success of many early missions. She was awarded the Presidential Medal of Freedom by President Barack Obama in 2015. Find more details about Mr.Katherine here.

1956

Evelyn Boyd Granville

Evelyn Boyd Granville joined IBM as a computer programmer writing software programs for the IBM 650 computer, and worked at NASA's Apollo space program, including digital computer techniques. In 1957 she joined IBM's Vanguard Computing Center in Washington, D.C., where she wrote computer programs that tracked orbits for the uncrewed Vanguard satellite and the crewed Mercury spacecraft.   -*Source: britannica.com*

1958

Roy L.Clay, Sr.

Started working as a computer programmer at Lawrence Radiation Laboratory in California. He is best known for developing new software for Hewlett-Packard (HP) computers. Over 50 years, Clay has played a huge role in computer science development and has paved the way for other African-Americans in the industry. Read more about his journey here.

Annie J. Easley

1958

Annie J. Easley was on the front line of space research and subsequent space missions that began with the launch of astronaut John Glenn into orbit. During the early 1960s, Easley began working on nuclear-powered rocket systems including the Centaur high-energy booster rocket, which had its first successful launch in 1963. Read more about here journey here.

Clarence "Skip" Ellis

1956

Clarence "Skip" Ellis becomes the first Black man to earn a doctorate degree in computer science. During 1991, he was chief architect of the FlowPath workflow product of Bull S.A. Previously he was the head of the Groupware Research Group within the Software Technology Program at MCC. For the decade prior to joining MCC, he was a research scientist at Xerox Palo Alto Research Center. Find more details about Mr. Ellis here.

Mark Dean

1956

Mark Dean, co-creator of the IBM personal computer (PC 5150) released in 1981. First African-American to become an IBM Fellow (which represents the highest level of technical excellence). He is also responsible for creating the technology that allows devices, such as keyboards, mice, and printers, to be plugged into a computer and communicate with each other. Find more details here.

Kimberly Bryant

1956

Kimberly Bryant founded Black Girls Code in 2011, a nonprofit organization that teaches programming to young girls of color. Bryant serves on the National Champions Board for the National Girls Collaborative Project, and the National Board of the NCWIT K-12 Alliance. Bryant and Black Girls CODE have been recognized nationally as social innovators and for their work to increase opportunities for women and girls in the tech industry. Find more details here.

Other Black Computer Scientists You Should Know About:

Melba Roy Mouton (1929-1990) Lyndsey Scott (1984-present) Joy Buolamwini (1989-present)
Mwende Window Snyder (1975-present) Gladys West (1930-present) Marc Regis Hannah(1956-present) ...
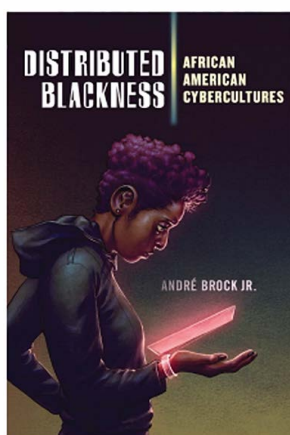Latanya Sweeney Valerie L. Thomas (1943-present) and many more!

Books

- Source: Amazon Book Reviews

№1
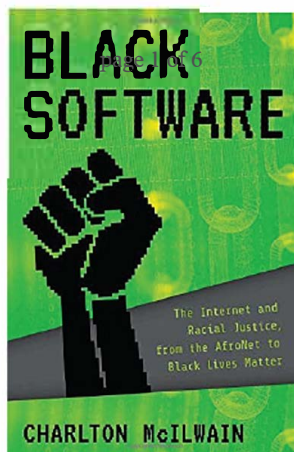
"**Distributed Blackness: African American Cybercultures**" (Brock, 2020)

"Distributed Blackness analyzes a host of platforms and practices (from Black Twitter to Instagram, YouTube, and app development) to trace how digital media have reconfigured the meanings and performances of African American identity"

№2

"**Black Software: The Internet & Racial Justice from the AfroNet to Black Lives Matter**" (MCIiwain, 2019)

"From the 1960s to present, the book examines how computing technology has been used to neutralize the threat that black people pose to the existing racial order, but also how black people seized these new computing tools to build community, wealth, and wage a war for racial justice."

№3
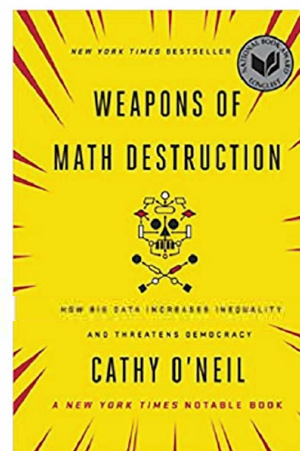
"**Weapons of Math Destruction**": How Big Data Increases Inequality and Threatens Democracy (O'Neil, 2016)

"Tracing the arc of a person's life, O'Neil exposes the black box models that shape our future, both as individuals and as a society. These "weapons of math destruction" score teachers and students, sort résumés, grant (or deny) loans, evaluate workers, target voters, set parole, and monitor our health."
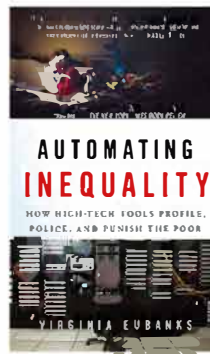
№4

Algortihms of Oppression (Noble, 2018)

"All search results are not created equal. Through deft analyses of software, society, and superiority, Noble exposes both the motivations and mathematics that make a techno-logically redlined internet. Read this book to understand how supposedly race neutral zeros and ones simply don't add up." - Matthew W. Hughey
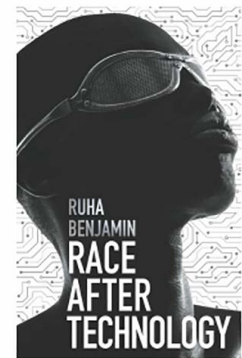
№5

"Automating Inequality: How High-Tech Profile, Police and Punish the Poor" (Eubanks, 2018)

"A reminder of what can go awry when politicians mistake techni-cal solutions for political solutions." - Vox, Dylan Matthews

№6

"Race After Technology" (Benjamin, 2019)

"The book decodes the technologies that have infiltrated our lives and our most powerful institutions and how these digital tools predictably replicate and deepen racial hierarchies."
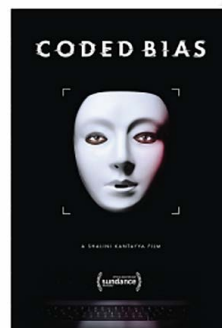
Movies/Documentaries

-Source: IMDB

№1

Hidden Figures (2016)

"The story of a team of female African-American mathematicians who served a vital role in NASA during the early years of the U.S. space program."

№2

Coded Bias (2020)

"This clear eyed documentary explores how machine-learning algorithms can perpetuate society's existing class-, race- and gender-based inequities."

№3

Makers: Women in Space (Season 2 Episode 3)

"A documentary episode about the first African-American woman in Space: Mae Jemison."

Podcasts

Nº1

Black Girl Nerds Podcast (Website)

"BlackGirlNerds is a podcast and place where girls of our ilk can express themselves freely and embrace who they are. This is not a show exclusively for Black women, but it is a show exclusively for Nerds!"

Nº2

Coding Black Females (Website)

"The Coding Black Females podcast is a space for black women in tech to share their journeys and inspirational stories."

Nº3

Modern Figures (Website)

"Modern Figures is a conversational style podcast elevating the voices of Black female scholars in computing. This podcast is presented by the Institute for African-American Mentoring in Computing Sciences (iAAMCS) in collaboration with the National Center for Women & Information Technology (NCWTT)"

Nº4

The CS Ed podcast (Website)

"This is a podcast where we talk about teaching computer science, with computer science educators, to learn about teaching and classroom management."

Organizations

Nº1

Institute for African-American Mentoring in Computing Sciences (Website)

The Institute for African-American Mentoring in Computing Sciences (i.AAMCS, pronounced 'i am cs') serves as a national resource for all African-American computer science students and faculty.

Nº2

Black Data Processing Associates (Website)

"A non-profit organization that serves the professional well being of its stakeholders. BDPA provides resources that support the professional growth and technical development of minority individuals in the information technology industry."

Nº3

National Society of Black Engineers (Website)

NSBE members, chapters, and supporters are dedicated to increasing the number of culturally responsible Black Engineers who excel academically, succeed professionally and positively impact the community.

Nº4

DevColor (Website)

/dev/color is a non-profit organization that helps Black software engineers grow into industry leaders. Our programs start with, and hold at their core, Black software engineers taking action themselves.

Emmerson Zhaime '17

I am currently a technology associate at Morgan Stanley's Wealth Management Division working with a global team of over 40 developers and program managers to create reports that are used by financial advisors to make day to day financial decisions. I mostly work on backend development even though I have been venturing more into front-end development lately. Prior to joining Morgan Stanley full time, I interned in their fixed income division as a securitized products group strats summer intern.

Since I was young, I have always been interested in solving problems, whether it is solving a simple puzzle or dismantling my toys and putting them back together. I grew up in a small rural town in Zimbabwe where I wasn't really exposed to that many computers but I took advantage of every opportunity that I had to learn more about computers.

I vividly remember the first time I learned how to use a computer in 5th grade. I was fascinated with the different things that I could do on the computer including playing the video-game bow & arrow. From that moment on, I made a pledge to myself that one day I would learn how to make my own video-games. Six years later, I took a computer science class in high school and built a payroll system for a local farmer using Quick Basic as part of my senior project. The joy I saw on the face of that farmer increased my interest in computer science. After I completed college I was fortunate enough to get into a program called United States Students Achievers program that helped me with SAT prep and college applications and was fortunate enough to be admitted by Hamilton College. Transitioning to college was hard not only because I was miles away from home, but because I wasn't totally sure what I wanted to pursue in college. I took my first computer science class my spring semester of freshman year and it rekindled my interest in computer science. The reason I really liked the class was because the class didn't feel like a class at all. It felt like I was just playing with my computer which I really liked. The next semester I took Data Structures and remember seeing a lot of people dropping out of the class and I contemplated doing the same numerous times but I kept on going on. My journey to graduating with a computer science degree was not easy. As one of the 3 people of color in my class who majored in computer science, I often doubted my ability from time to time and often asked myself if I belonged. The computer science department was very supportive and I had numerous conversations with my advisors and colleagues who encouraged me to keep on working hard. After four years of working hard, I finally graduated with a dual degree in computer science and Mathematics in 2017.

My advice to those who are majoring in or thinking of majoring in computer science is that they should always talk to their advisors, professors and peers if they are struggling with something because that will help establish a support structure that can help you work through your struggles. If you are working on a project, you should talk to your peers about it and bounce some ideas with each other because that will help you understand the problems better and the different ways you can tackle them. I would encourage more students of color to major in computer science and be open to talk to the professors and faculty members if they are struggling with something or feeling like they do not belong.

You can read more about Mr. Zhaime's journey here.

Eseosa ("Sosa") Asiruwa '18

I graduated from Hamilton in 2018 and have been working at Adobe as a Software Engineer with a focus on DevOps and Infrastructure Engineering. Before Hamilton, I thought I wanted to become a pediatrician. This was partly because I love kids and partly because of my family. Growing up, my Nigerian immigrant parents emphasized the importance of education and finding a stable "high-paying" career after graduation. However, after spending my first year at Hamilton tirelessly struggling through pre-med requirements, I decided to take a break and try something new.

At the end of freshman year, my amazing roommate at the time threw out the idea of taking the Intro to Computer Science course together. I'd never even heard of the subject. My high school didn't have computer courses and no one I knew in my community had ever worked as a software engineer or studied CS. Feeling extremely reluctant to jump into the unknown, I ended up taking a leap of faith and blindly hoping I'd stumble into something I'd like.

There were many moments and courses at Hamilton that stimulated me intellectually but none engaged me to think critically, communicate effectively, and prepare me for my current position as much as my courses in CS did. I was constantly and consistently challenged by professors who were passionate about their craft. I was surrounded by some of the smartest people I'd ever met who had an intense drive and work ethic that very often surpassed my own. Choosing CS ended up being one of the best decisions of my Hamilton career.

However, feelings of doubt often surfaced. There were many times where I struggled hard in courses others found easy. Thoughts like "Am I even good enough to call myself a CS major?" would creep up. There are times where I still feel like an "imposter" even after 3 years into my career. Over time though, I've started to realize that there is no one-size-fits-all mold of how to be a successful CS student or engineer.

For those looking for answers or advice on their STEM careers, don't be afraid to take a leap of faith. Many of us will struggle and that's ok. Within the struggle and insecurity come the greatest opportunities for growth. And as Hamilton students, these are the situations in which we thrive.

You can read more about Ms. Asiruwa's journey here.