

In collaboration with EarSketch and Georgia Tech, this NAF Expedition celebrates Hip-Hop's 50-year history, culture, legacy, and impact on numerous industries. We will explore the genre from different lenses like entrepreneurship, fashion, computer science, social change, and more! As you explore the realm of Hip-Hop, you will learn how creative technologies and even code has impact on the industry.



YOU can make the real-life connection between creative coding and Hip-Hop using EarSketch, an online program that teaches you how to code through music remixing.

Throughout this Expedition, we challenge you to think about the principles of Hip-Hop and how you can apply it to your final creative coding project. You will also LEAD YOUR LEARNING as you -

- **REFLECT** about your skills, learning goals, and purpose
- **STRETCH** your knowledge and skills through active learning
- **INNOVATE** and iterate solutions for real-world challenges
- **SHOWCASE** your innovations and learning in a dynamic way

We also encourage you to utilize our [Expeditions Idea Book](#) as you navigate this Expedition as a resource and space to get your creativity flowing, organize your ideas and research, and share your innovations and reflections.

## REFLECT

This video is from Sammus (Dr. Enongo Lumumba Kasongo) who is an, MC, gamer, a professor of Music at Brown University, and the director of Audio for Glow Up Games. As you watch [the video](#), think deeply about these questions:

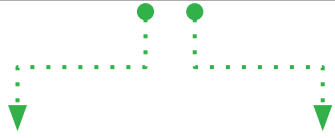


- What is a passion you have? What would it look like to use this passion as a career or to launch a business?
- What ways can creative computing help you express yourself?
- How did Sammus incorporate her music passion with technology?

## STRETCH

Let's explore the history of Hip-Hop, what makes it a unique form of music, and how it's expands its impact on culture.

	<p>Read the article "<a href="#">Hip-Hop influences Everything</a>" by Dr. Joycelyn Wilson, Assistant Professor of Black Media Studies and a Hip-Hop scholar at Georgia Tech.</p> <ul style="list-style-type: none"> <li>➤ Want to hear more from Dr. Joycelyn Wilson? Listen to her <a href="#">interview</a> on Hip-Hop@50!</li> </ul>
	<p>Listen to Sugar Hill Gang's "<a href="#">Rapper's Delight</a>" and Grandmaster Flash and the Furious Five's "<a href="#">The Message</a>" two of the greatest Hip-Hop songs of all time.</p> <ul style="list-style-type: none"> <li>➤ Discuss what these songs have in common. What types of beats do you hear? What makes them unique in the Hip-Hop genre?</li> <li>➤ What other parts of Hip-Hop culture are shown in these videos?</li> <li>➤ How does the production of these songs show innovation in technology?</li> </ul>
	<p>Brainstorm some of the characteristics of a Hip-Hop song. Think about some of your favorite Hip-Hop songs and discuss what they have in common. How can you think about the structure of a Hip-Hop song as code?</p>
	<p>Watch the videos below, think about how Hip-Hop can inspire you to innovate in technology or another field?</p>



**#GDoCExpo**  
**5 Things to Know Before You Launch Your Studio**

Meet Latoya Peterson Chief Experience Officer of Glow up Games, a gaming company led by women of color, who create games with Hip-Hop and Black Culture at its center. LaToya has developed a game along with co-founder Dr. Mitu Khandhaker featuring the cast of Issa Rae's Insecure, called "Insecure: the come up game." where you follow the story of cast members and make music with them.

in collaboration with  
NAF EXPEDITIONS  
EarSketch  
CEISMC

**50 YEARS OF HIP-HOP**  
**JAHWILL FANNINGS**  
Georgia Tech Music Tech/Business Major  
Founder & Mixing Engineer for Jah Studios

Follow us on @NAFCAREERACADS

Meet Jahwill Fanning, a junior Music Technology and Business major Georgia Tech and founder of Jah Studios, who is building his careers around music, Hip-Hop, and business. Jahwill has established himself as an entrepreneur while still in college. Listen how he discusses the importance of music and how he uses coding in his career.



## WHAT ARE SOME CAREERS RELATING TO HIP-HOP?

The opportunities are nearly endless. The influence of Hip-Hop is far-reaching.

### IF YOU LOVE ...

### CONSIDER DOING THIS...

#### FASHION



Use your talents to design garments that you and other artists in the Hip-Hop community would be proud of. [Misa Hylton](#) and [Dapper Dan](#) are great examples of designers who made garments for Hip-Hop royalty. [This article](#) touches on Hip-Hop's imprint on fashion. You can use [Figma](#) or [GIMP](#) to sketch your garments, and learn how to use these tools with this [GIMP tutorial](#) or this [Figma Tutorial](#).

#### SHOPPING & COMMERCE



Create an app on [App Inventor](#) that keeps track of your favorite musicians, and the fashion/lifestyle items they use. Check out [KickStroid](#), an app developed by two sneakerheads that uses Machine Learning to understand which sneakers its users like, and predicts the future sale price of sneakers that interest them. The founders use this information to help more people join the global community of sneakerheads.

#### MOVIES & TV



Combine your passion for film and music! [Spike Lee](#) and [Issa Rae](#) are famous filmmakers whose love for Hip-Hop comes through in their work. Issa owns a record label that has released artists whose music is on her show. She also has a music supervisor who has a hand in picking the songs that you hear on *Insecure*.

#### COMPUTING & MUSIC



You can be a software developer that makes tools to enhance the creative process of emcees. Lupe Fiasco has partnered with google to make a suite of tools called [TextFX](#) that help rappers explore new possibilities with language. Hip-Hop has a long history of developing music technologies. If you are interested in creating your own music, consider creating beats or a song using [this GarageBand app tutorial](#) or [this BandLab app tutorial](#).

#### HOSPITALITY & TOURISM



Check out [this article](#) about how parks are critical to Hip-Hop culture or visit this site for [The Hip-Hop Museum](#) in DC. Think about how you can use your knowledge in the tourism industry to develop an experience for travelers to explore Hip-Hop in different neighborhoods, cities, or countries.



## Creative Coding and Careers: Explore a future at the intersection of the arts and technology

There are many career choices in creative coding to choose from:

- a 3D animator designing characters
- an AI specialist that programs robots
- a front-end web developer who designs the visual presentation of a website

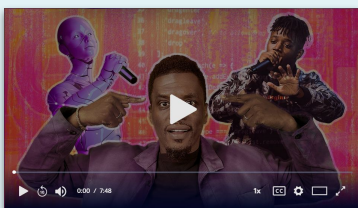
**Discuss:** What are some other careers that use coding to promote creative work? Do you know of careers in music that use coding?

### Getting Started: Creative Coding in the Music Industry

One path you can take is developing apps or plugins that help Hip-Hop producers to make new songs. Most of the music you hear on Spotify or Apple Music is created using music software on desktops, laptops, or mobile devices. The first step along that journey is getting a foundational understanding of how to use a programming language to solve problems, while making music! Here are a few tools you can experiment with to get started\*:

- **Earsketch** lets you write code in javascript or python to create music, while seeing visualizations of the music you create.
- **Making Music with Computers** is book about making music with python.
- **ythonMusic** is a set of music-making tools which is available for free.
- Spotify's **Pedalboard** gives python coders access to a library of industry standard music code to develop their own software. (Check out **Pedalboard** to experiment with music in python.)
- Creating an **Online Portfolio** - Making small projects (like an audio player, or a song created using code) and posting them.

\*Want to learn more about programming and music? Watch [this video](#) from Dr. David James explaining these resources.



Micah Brown an MC and Computer Scientist created **BrainRap** that uses AI to analyze lyrics and make suggestions to help them overcome writing blocks.



Watch as a musician uses an AI tool called **ChordChord** to generate music that he uses as a starting point for a beat.



Watch a musician use an app called **tracklib** to pick 3 random samples for him to make a beat on his phone with GarageBand.

## INNOVATE

**What can you create (through coding or other means\*) that expresses or celebrates the impact of Hip-Hop? (You can also refer to page 3 of this Expedition for more ideas!)**

PROJECT IDEAS USING CODING	PROJECT IDEAS NOT USING CODING
Mix your own music using the built-in curriculum in <a href="#">EarSketch</a> using Python, JavaScript.	Design a product using <a href="#">Blender</a> , a free 3D software to make graphics, animations, or products. You may even want to download and explore the course <a href="#">Scripting for Artists</a> . (If you love fashion, animation, etc., this may be for you!)
Redesign an album cover for your favorite hip-hop album using <a href="#">Your First Sketch</a> , a free JavaScript library for creative coding that is made for all.	If you love numbers or data analysis, check out the Recording Industry Association of America's (RIAA) <a href="#">site</a> and review sales for <a href="#">Hip-Hop</a> singles/albums. Develop a presentation about the top sellers, sharing insights about trends over the decades and how that may have impacted sales, or predict who will be the top Hip-Hop artist in the coming year. Support your claim with evidence. ( <a href="#">Billboard</a> is another source of data, but you can choose your own.)
	Create an walking exhibit at your school to celebrate 50 Years of Hip-Hop. (Maybe consider developing a virtual reality experience.)

If the choices above don't appeal to you, check out page 3's "If you love...consider this" section for ideas, or you can design your own project revolving around hip-hop.

\* Even if you don't have a deep knowledge of coding, consider the project ideas using coding but utilizing a non-coding tool, app, or medium.



### OPPORTUNITY ALERT!

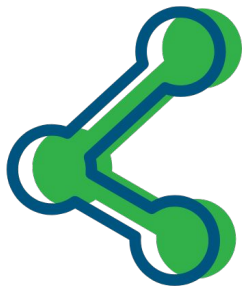
If you coded a song through EarSketch, share your music for prizes through the [Build a Beat Challenge](#), hosted by Black Girls Code and Goldieblox. It ends on 12/31/23, but if you miss the date, explore [EarSketch's site](#) for other competitions, or consider hosting one of your own at your school.

## SHOWCASE

Share your learning and creation with the world in one (or more) ways. Choose one of the options below:

<p>CHOICE 1: If you coded a song through EarSketch, share your music for prizes through the <a href="#">Build a Beat Challenge</a>, hosted by Black Girls Code and Goldieblox. It ends on 12/31/23, but if you miss the date, explore <a href="#">EarSketch's site</a> for other competitions, or consider hosting one of your own at your school.</p>	
<p>CHOICE 2: Share what you learned in this Expedition in your digital portfolio, website, or blog (like <a href="#">Bulb</a> or <a href="#">Google Sites</a>), then share it with an audience.</p>	<p>CHOICE 3: Host a "Celebrating 50 Years of Hip Hop" event where you and your peers can share what you created for this NAF Expedition.</p>
<p>CHOICE 4: Present your project to:</p> <ul style="list-style-type: none"><li>• community members, aspiring professionals in the Hip-Hop industry, or your mentor for feedback and insight</li><li>• local middle school students to share what you learned in the Expedition and recruit them to be in your academy.</li></ul> <p><i>(Regardless of your choice, provide time for a Q&amp;A session.)</i></p>	<p>CHOICE 5: Design your own method of presenting your innovation.</p>

### STUDENTS, SHARE YOUR INNOVATION!



NAF would love to see your creation! After you get your educator's permission, submit yours [HERE](#). We may highlight you on social media!

(We WILL NOT share your work without your educator's and your approval.)