ROADTRIP NATION

AT YOUR FINGERTIPS

VIEWING GUIDE

ABOUT ROADTRIP NATION

For over 15 years, we here at Roadtrip Nation have made it our mission to help individuals pursue fulfilling careers aligned with their interests and strengths. We show people how to turn the things they like into careers they love—and we do it with the most powerful of tools: personal stories.

From snowboard designers to astrobiologists, we've sat down with professionals of all kinds and asked them honest questions about their struggles, successes, and their answers to the age-old question: "What should I do with my life?" These conversations form the foundation of our career resources, which introduce young people to new paths and illustrate how to pursue them.

ABOUT "AT YOUR FINGERTIPS"

Follow along as Megan, Sage, and Devohne—three young adults eager to explore the opportunities available to them in the computer science industry—travel across the country to talk with software engineers, data scientists, professors, product managers, and more. Fueled by the National Science Foundation, "Roadtrip Nation: At Your Fingertips" follows these three young people on a journey to carve out their unique space in the world of computer science. Their stories—and those of the inspiring people they meet—prove that increasing representation in the computer science field helps drive innovation, and pushes the industry forward as a whole.

Watching "At Your Fingertips" and using this accompanying guide with your students is a great way to start connecting them to important themes and resources within the world of computer science, helping them along their journey of career exploration and self-discovery.

See you on the road!

HOW TO USE THE "AT YOUR FINGERTIPS" VIEWING GUIDE

The "At Your Fingertips" viewing guide is meant to be used during and after viewing the "At Your Fingertips" documentary.

The activities and resources that follow are designed to be completed by students along with their mentors, teachers, professors, or family members, in order to spark meaningful conversations about students' future aspirations and how to achieve them.

Here are a few ideas on how to use the guide with your students.

WATCH
This viewing guide should be filled in after watching the documentary as a whole; however, the documentary may be split into two viewings if needed.

Total running time: 60 minutes

TALK
Provide a viewing guide to each student before screening the documentary. After watching, have students read the TALK section and discuss topics that arise. You may want to pick and choose, or add your own discussion topics, depending on what feels most relevant to your students.

If you'd like to use this guide for group discussions, students should write down their thoughts first, then share through conversation. Discussions can take place in small groups with peers, or with an instructor, mentor, or family members. (All of this can be done virtually as well!) Encourage students to discuss any insights, ideas, or questions they have during the viewing of the documentary or during your conversation.

Student written response time: 30 - 60 minutes
Optional discussion time: 30 - 60 minutes

CONNECT AND REFLECT
Participants can connect and reflect during class time or at home. The discussion questions that the students will be answering will assist in self-exploration and reflection. Invite students to share new information they discover as they connect to the content from the film. You can also encourage them to visit roadtripnation.com for more leader interviews and interactive tools.

MEET THE ROADTRIPPERS

MEGAN
Age 20
From Cranbury, NJ
Growing up in Queens among immigrants, Megan felt comfortable being herself. Everyone was different from each other, so she never felt alone. But moving to a predominantly white neighborhood in junior high shook her confidence. "I was self-conscious to be the only female Asian." She's worried she'll feel the same way once she enters the male-dominated field of computer science, and is concerned she won't be able to fit in the industry she's most interested in. She hopes this road trip will help her find mentors in her community, and give her new confidence in her identity.

DEVOHNE
Age 23
From Stuart, FL
Devohne knows that being different can bring opportunities or prevent them, but he always strives to be himself. There's a freedom that comes with being true to yourself, and he learned that when he came out. He was in high school and terrified to tell people—especially his religious family—but being honest gave him confidence. He's proud of who he is, but worries tech companies might want someone who fits the mold. He's also concerned about finances and education: He had to leave college due to money issues and fears he won't be successful in computer science without a degree. He's looking to meet people who overcame similar challenges and took a nontraditional route.

SAGE
Age 21
From Oakland, CA
Sage didn't find purpose until working at a college makerspace. There, Sage taught everything from sewing to laser cutting, and learned how helping others can have an impact. Sage loves computer science, and wants to find roles in the field that would allow them to continue helping people. But Sage is concerned about the negative impacts of tech, like gentrification, and doesn't want to be part of the problem. Sage also isn't sure if computer science will be an accepting community; as someone who identifies as nonbinary, Sage worries about discrimination and hopes this road trip will show it's possible to be a minority and not only succeed, but thrive.

1: REPRESENTATION

"We come across so many individuals that are too smart not to have that creative confidence to say, 'I can go make games, I can go launch my own website, I can go launch my own tech business.' There is strength in representation. There is strength in seeing someone as a role model."

Ahmed Abdullah
Co-founder & CEO
Decoy Games

Talk

As the roadtrippers begin their journey, they also begin to find their own voices. Their desire to explore brings up the question, "Are there others like me in computer science?" The roadtrippers meet leaders working in a variety of niches within computer science and explore what it takes to find your own path. Stepping out on your own and finding your place is never easy, but there are small steps you can take to start becoming more independent and confident.

Connect and Reflect

1. Roadtripper Devohne talks about the roadblocks along the way of his path, ranging from financial insecurity, to self-esteem issues, to a lack of representation in the computer science field. What roadblocks have you encountered along your journey so far and how have you attempted to overcome them?

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2. Leader Ahmed Abdullah mentions that one of his school project assignments inspired him to create the game that sparked his love of game development. Was there an event, project, or something else specific that sparked your interest in computer science? If so, what was it?

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1: REPRESENTATION

> "We can't have innovation and discovery without a lot of different voices at the table."
>
> **Ann Quiroz Gates**
> **Professor & Chair, Computer Science Department, The University of Texas at El Paso**

3. Leader Ann Quiroz Gates talks about the positives of having diverse representation in the field of computer science. To you, what is the most important reason for the need of diversity within this field?

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4. Have you ever felt stereotyped? Did you feel pressured to prove that stereotype wrong? How did you get through that experience?

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4. Ann signs the RV leaving this piece of advice: "Computer science provides opportunities to make change and make an impact…so go out and make a difference." What is something you can do this month to start making an impact in the field of your choice?

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2: YOUR TRUE SELF

> "A lot of things present themselves as this ivory tower that you have to be invited into. I believe that everyone should be able to make decisions for themselves. For me, giving kids and families access to early STEM education just gives you more options."
>
> **Kelley Cambry**
> Co-founder & CEO, Blue Studios.io

Talk

As the roadtrippers interview different leaders, they discover that each individual had dreams and aspirations beyond who they were, and who they felt stereotyped to be. In order to get where they wanted to go, they had to work hard, overcome obstacles, and refuse to let other people's perceptions—or misconceptions—defer them from pursuing their goals. To define your own road, you need to listen to yourself...but it isn't always easy. The most successful leaders have been able to stay true to themselves because they developed a support network of friends, family, and mentors whose advice they value. Their support networks cheered them on as they figured out who they were and lifted their spirits when they struggled.

Connect and Reflect

1. Leader Kelley Cambry saw the need for earlier access to STEM education and created Blue Studios as a way to fill that need. What need or gap do you see in the computer science industry, and how can you take a step toward figuring out a solution?

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2. Roadtripper Sage talks about feeling slightly out of place, but being comforted by others who felt that same way. When have you experienced feeling slightly out of place, and were you able to overcome that feeling? If so, how?

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2: YOUR TRUE SELF

"I looked up one day after the birth of my daughter and I looked around and nothing had changed. I thought, what is the field going to look like for her? I felt almost embarrassed I had waited that long. It was really important for me to have that personal expression again."

Kimberly Arcand
Visualization & Emerging Tech Lead, NASA's
Chandra X-ray Observatory

3. Roadtripper Megan talks about her struggle between balancing expectations of others and her own definition of success. She also talks about the struggle of bringing her full self into the industry. What does it mean to you to be your full self, and how can you use that on your career path?

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4. The power of encouragement has been motivating for roadtripper Sage along their path in life. Who has encouraged you to be your full self? In what ways have you encouraged others to be their full selves?

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3: AUTHENTICITY

> "When you're one of the 'onlys' in an environment, you find yourself being that only voice a lot. You're walking this tightrope about prioritizing other people's comfort levels."
>
> **Kelsey Campbell**
> Founder, Gayta Science

Talk

There are many things that can stall you when you're trying to move forward on your road. You can get stalled by other people's words or expectations—or you might even be standing still because of your own fear of failure or rejection! But whatever's blocking your path, there is a way to get through it.

As the roadtrippers meet with different leaders, a common theme arises in each of their stories: the importance of figuring out who you are and what lights you up at your core. That thing that lights you up is what has the power to keep you going, and can motivate you to push forward past those roadblocks. As you respond to the questions that follow, trust your own ability to listen to—and be driven by—your own voice and your needs, no matter how big or impossible that seems.

Connect and Reflect

1. Leader Kelsey Campbell signs the RV with a Nelson Mandela quote that says, "May your choices reflect your hopes, not your fears." Give an example of when you've made a choice reflected by your hopes and an example of when you've made a choice reflected by your fears. How did the outcomes differ?

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2. Roadtripper Sage talks about the importance of combining their interests and their values. List two of your core interests and two of your core values and try to think of ways you can combine them to live an authentic life.

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3: AUTHENTICITY

> "That sense of not feeling like you deserve to be there is real, and it's not something that you should buy into. It's a collaborative effort, and you bring something to the table that somebody else may not."

Ryan Johnson
Software Engineer, ShapeShift

3. Leader Ryan Johnson talks about the sense of feeling like you don't deserve to be in a certain job—but he also emphasizes that it's not something that you should buy into. We call those kinds of self-doubts and negative thoughts "Noise." How can you tune out the Noise and listen to your own goals and beliefs? When you're feeling self-doubt, or are hearing negative feedback from others, where can you turn to—or who can you turn to—for support of your aspirations?

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3: AUTHENTICITY

"The journey is never going to be predictable. We have to wander a little bit. We have to be willing to go try. If we are so scared that we are going to fail that we don't even try, we will never find a solution."

Emily Ma
Food Systems Lead,
X, the moonshot factory

4. Emily Ma says that leaders come in many different forms. What qualities do you have that help make you a leader?

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5. What did this documentary teach you about the opportunities available within the computer science industry?

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Keep Going!

Ready to see how your computing interests and talents line up with different undergraduate courses of study and careers? Check out: www.ncwit.org/pace