

AI Youth Academy

SMITH Empowers

Your ideas deserve a place in the future of technology. In this 12-week AI Youth Academy, youth and young adults explore artificial intelligence through practical activities, creative experiments, and real-world questions. Designed to expand access for learners underrepresented in technology, the program helps you become a thoughtful creator of useful AI-powered solutions.

- **Understand the technology.** Explore machine learning, natural language processing, and the connections between AI and robotics. Learn how algorithms use information, where AI can help, and why its results need careful review. Practice asking useful questions, checking outputs, and making responsible decisions about the tools you use.
- **Build a hands-on portfolio.** Turn classroom learning into projects that address everyday challenges or support creative goals. Develop AI-assisted work, document your process, and explain the choices behind your results. Your portfolio gives you concrete examples to discuss with teachers, mentors, future collaborators, or people reviewing your next learning opportunity.
- **Strengthen your voice and confidence.** Practice problem solving, critical thinking, and teamwork as you test ideas and improve your projects. Learn to explain technical concepts in everyday language and present your work clearly. These skills help you participate in technology conversations and consider how your creations could benefit your community.
- **Plan your next step.** Receive 1-on-1 career coaching that connects your interests with education and career exploration. Identify strengths, set practical goals, and learn how to describe your developing skills. Whether you are curious about further study or technology careers, leave with clearer direction and a portfolio that supports your story.

At a glance

Who it's for	Youth and young adults ages 13-24; separate groups for ages 13-17 and 18-24, with instruction matched to experience
Length	12 weeks
Format	In person and remote, depending on the session
Prerequisites	No prior AI or coding experience required; basic computer skills are helpful.
Equipment	Laptop or desktop, internet, and instructor-selected AI tools permitted for each age group. Parent or guardian permission is required for minors to use AI services. Contact us about device access and materials.
Projects	Hands-on portfolio projects
Career support	1-on-1 career coaching
Certificate	SMITH Empowers certificate of completion

Participants ages 13-17 need parent or guardian permission to enroll. Contact us for upcoming session dates, fees, and enrollment steps. To earn the SMITH Empowers certificate of completion, attend at least 10 of the 12 weekly sessions, complete the portfolio projects, present a final project or portfolio, and complete the starting and final skills checks.

Mathlete Bootcamp

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Math can help you make decisions, solve everyday problems, and bring ideas to life. Our 12-week Mathlete Bootcamp gives youth and young adults a way to strengthen mathematical thinking. Through hands-on learning, you connect classroom concepts with real situations while building confidence for further education and career exploration.

- **Make the fundamentals work for you.** Explore arithmetic, fractions, geometry, algebra, and introductory data concepts through activities. Practice understanding a problem, choosing a method, and explaining your reasoning. Each task helps you see how mathematical ideas connect, so you can move beyond memorizing steps toward making sense of the solution.
- **Create a hands-on portfolio.** Apply your learning to projects such as a budget, a scaled design, or an original mathematical game. Collect calculations, visual explanations, and reflections that show how you reached answers. Your portfolio makes your progress visible and gives you work to share with teachers, mentors, and potential collaborators.
- **Build confidence through problem solving.** Work through puzzles, compare approaches, and learn from mistakes without treating them as the end of the process. Practice persistence, teamwork, and clear communication as you revise your work. These habits support learning across science, technology, design, and the everyday decisions you make beyond the classroom.
- **Connect learning with your goals.** Receive 1-on-1 career coaching to explore how mathematical skills support your interests and options. Discuss education pathways, identify areas to strengthen, and set achievable next steps. Designed to expand opportunity for underrepresented learners, this program helps you recognize your abilities and explain them with confidence.

At a glance

Who it's for	Youth and young adults ages 13-24; separate groups for ages 13-17 and 18-24, with instruction matched to experience
Length	12 weeks
Format	In person and remote, depending on the session
Prerequisites	No formal prerequisite; a starting assessment guides instruction.
Equipment	Laptop or desktop, paper, pencils, ruler, and selected learning tools; internet for remote sessions. Contact us about device access and materials.
Projects	Hands-on portfolio projects
Career support	1-on-1 career coaching
Certificate	SMITH Empowers certificate of completion

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Scratch

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Start creating with code by turning your imagination into something people play, watch, and explore. This 12-week Scratch program introduces youth and young adults to visual programming through storytelling and game creation. It offers a starting point for learners underrepresented in technology who want to build skills through creative practice.

- **Learn programming through visual building blocks.** Use Scratch to organize instructions, control actions, and connect events with responses. Explore the logic behind an interactive project while developing an understanding of how code works. Visual learning lets you focus on your ideas and practice the problem-solving habits that support programming study.
- **Build a hands-on creative portfolio.** Develop interactive stories, animations, and games reflecting your interests. Plan each project, test what happens, and improve the experience for your audience. Save your finished work alongside explanations of your choices, creating a portfolio that shows your creativity and ability to solve technical problems.
- **Practice collaboration and presentation.** Share ideas, give feedback, and explain how your projects function. Learn to break a challenge into manageable tasks and keep improving when something does not work as expected. These experiences strengthen communication, persistence, and confidence while helping you consider creative ways to contribute to your community.
- **Explore where your interests can lead.** Receive 1-on-1 career coaching to connect your skills with future learning and career possibilities. Discuss interests in coding, game development, animation, or digital storytelling. Set realistic goals and practice presenting your portfolio so you can take your next step with a clearer sense of direction.

At a glance

Who it's for	Youth and young adults ages 13-24; separate groups for ages 13-17 and 18-24, with instruction matched to experience
Length	12 weeks
Format	In person and remote, depending on the session
Prerequisites	No prior coding experience required.
Equipment	Laptop or desktop and Scratch; internet for remote sessions. Shared classroom coding kits are used for hands-on projects in person. Contact us about device access and materials.
Projects	Hands-on portfolio projects
Career support	1-on-1 career coaching
Certificate	SMITH Empowers certificate of completion

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Introduction to Python

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Learn to write code that turns an idea into a working solution. This 12-week Introduction to Python gives youth and young adults a foundation in programming, from basic syntax to structured projects. Designed to expand access for underrepresented learners, the program connects technical learning with creativity, confidence, and future opportunities.

- **Develop a programming foundation.** Explore Python syntax, data types, functions, libraries, and introductory object-oriented programming. Learn to organize instructions, read code, and work through errors systematically. As concepts become familiar, practice combining them into programs with a clear purpose. Connect each new skill to a problem you want to solve.
- **Create a hands-on portfolio.** Build projects that apply your skills to everyday tasks, information, or personal interests. Plan a solution, test its behavior, and revise your code. Include project descriptions and explanations of your decisions so your portfolio shows what you built and how you approached the work.
- **Grow as a problem solver.** Practice breaking tasks into smaller steps, evaluating approaches, and communicating your reasoning. Learn how persistence and careful testing help a program improve. These habits support teamwork and independent learning, giving you skills that extend beyond one language and help you tackle new technical challenges with confidence.
- **Connect your skills with your future.** Receive 1-on-1 career coaching to explore education and career pathways connected to programming. Identify strengths, set achievable goals, and practice explaining your portfolio to others. Whether your interest is software, data, automation, or further study, develop an understanding of the steps you can take next.

At a glance

Who it's for	Youth and young adults ages 13-24; separate groups for ages 13-17 and 18-24, with instruction matched to experience
Length	12 weeks
Format	In person and remote, depending on the session
Prerequisites	No prior coding experience required; basic typing and computer skills are helpful.
Equipment	Laptop or desktop and instructor-selected Python tools; internet for remote sessions. Shared classroom coding kits are used for hands-on projects in person. Contact us about device access and materials.
Projects	Hands-on portfolio projects
Career support	1-on-1 career coaching
Certificate	SMITH Empowers certificate of completion

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Introduction to TinkerCAD

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Give your ideas shape and explore how designers turn a concept into a usable model. This 12-week Introduction to TinkerCAD introduces youth and young adults to online three-dimensional design. Through practical projects, learners underrepresented in technology develop creative confidence while connecting design, mathematical thinking, and problem solving with future possibilities.

- **Learn the foundations of digital design.** Explore the TinkerCAD workspace and practice building three-dimensional models from shapes. Work with size, position, proportion, and the relationship between parts. Learn to consider what a design needs to do, then make choices that help your model communicate an idea clearly to others.
- **Build a hands-on design portfolio.** Create digital models that respond to needs or reflect your interests. Develop a concept, test different arrangements, and refine the details. Save images and explanations of your process so your portfolio shows both finished designs and the thinking that helped you improve them.
- **Strengthen spatial thinking and communication.** Practice visualizing objects, comparing alternatives, and explaining why a design works. Use feedback to improve your models and learn how constraints can guide decisions. These experiences build patience, attention to detail, and collaboration skills while helping you explore how thoughtful design can serve people and communities.
- **Explore education and career directions.** Receive 1-on-1 career coaching that connects your interests with opportunities in design, engineering, and related learning pathways. Identify skills you want to develop, set goals, and practice presenting your portfolio. Leave with a clearer understanding of your strengths and the next steps that could support your ambitions.

At a glance

Who it's for	Youth and young adults ages 13-24; separate groups for ages 13-17 and 18-24, with instruction matched to experience
Length	12 weeks
Format	In person and remote, depending on the session
Prerequisites	No prior CAD experience required; basic computer skills are helpful.
Equipment	Laptop or desktop, internet, and TinkerCAD access. Contact us about device access and materials. A personal 3D printer is not required.
Projects	Hands-on portfolio projects
Career support	1-on-1 career coaching
Certificate	SMITH Empowers certificate of completion

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Introduction to JavaScript

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Create web experiences that respond to people and bring your ideas to life. This 12-week Introduction to JavaScript helps youth and young adults develop skills for interactive web programming. Designed to expand access for learners underrepresented in technology, the program combines hands-on projects with problem solving, creative expression, and career exploration.

- **Understand how interactive websites work.** Explore variables, control structures, functions, and the Document Object Model. Learn how JavaScript responds to events and changes webpage content. Connect these concepts as you practice building interactions, reading your code, and understanding why a feature behaves differently from your expectations during testing.
- **Build a hands-on web portfolio.** Develop projects such as a quiz or a webpage feature that responds to user input. Plan what the experience should do, test your code, and refine the result. Collect working examples with project descriptions so your portfolio demonstrates your technical skills and creative decisions.
- **Practice thoughtful development and teamwork.** Break ideas into manageable tasks, explain your approach, and use feedback to improve work. Consider how other people will experience the features you create. These activities strengthen critical thinking, persistence, and communication while helping you develop habits you can carry into learning and collaborative projects.
- **Plan a direction that fits your interests.** Receive 1-on-1 career coaching to explore further education and pathways related to web development. Identify your strengths, discuss areas for growth, and set achievable goals. Practice talking about your portfolio so you can describe what you have learned and approach opportunities with clarity and confidence.

At a glance

Who it's for	Youth and young adults ages 13-24; separate groups for ages 13-17 and 18-24, with instruction matched to experience
Length	12 weeks
Format	In person and remote, depending on the session
Prerequisites	No prior JavaScript experience required; introductory HTML/CSS is taught or supported within the course.
Equipment	Laptop or desktop, browser, and instructor-selected code editor; internet for remote sessions. Contact us about device access and materials.
Projects	Hands-on portfolio projects
Career support	1-on-1 career coaching
Certificate	SMITH Empowers certificate of completion

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Animation

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Tell stories that move and turn creative ideas into visual experiences. This 12-week Animation program helps youth and young adults explore animation through drawing, storyboarding, and digital tools. Designed to expand opportunity for underrepresented learners, it connects artistic expression with practice while building confidence for future education and career exploration.

- **Develop the foundations of animated storytelling.** Explore animation principles, basic drawing techniques, and the role of storyboards in planning a sequence. Discover how two-dimensional and three-dimensional tools support creative approaches. Practice making choices about movement and visual communication so your work expresses an idea your audience can follow and understand.
- **Create a hands-on animation portfolio.** Develop projects that show the progression from an idea to an animated result. Collect sketches, storyboards, digital experiments, and finished sequences alongside explanations of your process. Your portfolio gives you work to share and helps others understand your creative voice and developing technical abilities.
- **Build patience and teamwork.** Break a creative project into stages, test approaches, and refine details through feedback. Learn to explain your decisions and support your peers with observations. These experiences strengthen attention to detail, problem solving, and communication while helping you recognize how stories connect with people and communities.
- **Connect creativity with your next step.** Receive 1-on-1 career coaching to explore education and career possibilities in animation and related fields. Identify your strengths, set development goals, and practice presenting your work. Build a clearer picture of the learning pathways that match your interests and steps you can take to pursue them.

At a glance

Who it's for	Youth and young adults ages 13-24; separate groups for ages 13-17 and 18-24, with instruction matched to experience
Length	12 weeks
Format	In person and remote, depending on the session
Prerequisites	No prior animation experience required; drawing experience is optional.
Equipment	Laptop or desktop, instructor-selected animation tools, and basic drawing supplies; internet for remote sessions. Contact us about device access and materials.
Projects	Hands-on portfolio projects
Career support	1-on-1 career coaching
Certificate	SMITH Empowers certificate of completion

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Drone and Robotics

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Explore how code can guide movement, solve problems, and connect ideas with the physical world. This 12-week Drone and Robotics program introduces youth and young adults to drone technology and programming. Through practical learning, underrepresented learners build technical confidence while developing an approach to technology, teamwork, and future career possibilities.

- **Learn the foundations of responsible operation.** Explore basic drone operation, safety considerations, and the importance of understanding applicable rules. Connect these foundations with the logic used to direct movement and complete tasks. Practice thinking through what a system should do and why planning matters before putting an idea into practice safely.
- **Build a hands-on portfolio.** Develop projects that connect programming with drone behavior and task planning. Document your goals, code, observations, and improvements as you work toward a solution. Your portfolio shows how you approach challenges and gives you examples to discuss with educators, mentors, and others interested in your learning.
- **Strengthen problem solving and teamwork.** Break a challenge into steps, compare approaches, and learn from testing. Practice explaining your decisions and considering how a change affects the system. These experiences build persistence, critical thinking, and communication while helping you explore how aerial technology can contribute to community solutions.
- **Explore your education and career options.** Receive 1-on-1 career coaching to connect your interests with learning pathways related to drones, robotics, programming, and engineering. Identify strengths, set realistic goals, and practice presenting your portfolio. Develop an understanding of the skills you want to strengthen and steps that support your future ambitions.

At a glance

Who it's for	Youth and young adults ages 13-24; separate groups for ages 13-17 and 18-24, with instruction matched to experience
Length	12 weeks
Format	In-person hands-on sessions; remote theory or simulation sessions where offered
Prerequisites	No prior drone or robotics experience required; safety orientation precedes hands-on activities.
Equipment	Laptop or desktop, supervised drone and robotics equipment, and a practice area; internet for remote theory or simulation. Contact us about device access and materials.
Projects	Hands-on portfolio projects
Career support	1-on-1 career coaching
Certificate	SMITH Empowers certificate of completion

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