STEM INTRO in Computer Science for Middle School & High School:

Girls Who Code: Bravery, Sisterhood, and Activism

Introductory Principles of IT & Engineering

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Who Are We?

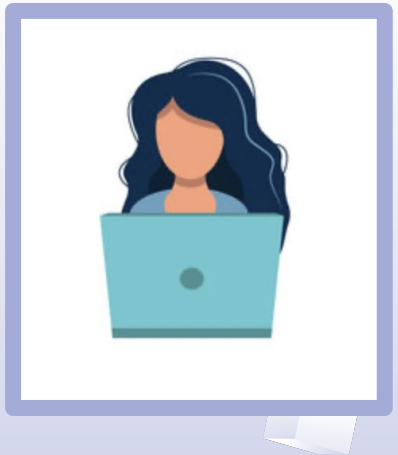
Women In Tech Roles

Both of us work in big technology companies and have been growing in our roles over the years!

Women Who Studied Computer Science

Both of us have studied different topics in Computer Science (CS) and learnt different coding languages!

Tiny Bites!



01

About it

Coding is all about how computers talk. We use language (like English) and computers have their own!

02

History

It's kinda like legos! Practicing and seeing how pieces fit can be extremely fun! Just like legos - Girls Code Too!

03

Nowadays

We aren't just growing. We are leading in this field too! There are so many supportive groups/people for coding!

04

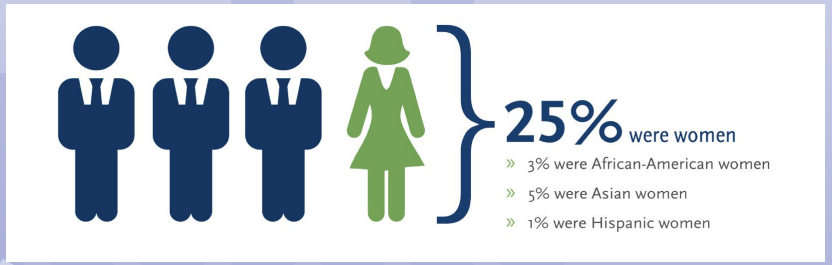
Advices

Coding is like a fun puzzle. Just like a crossword puzzle and word search! It just looks different! Just need to learn bit-by-bit!

Be part of the Change

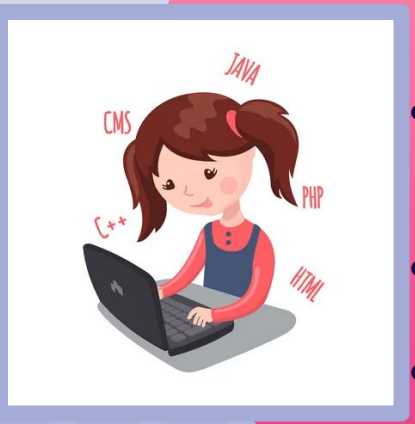
There is a significant gender gap in the tech industry, with fewer women than men working in technology-related fields. There are many reasons for this gap, including societal and cultural factors, as well as barriers and biases that women may face when pursuing careers in technology.

Another reason for the gender gap in tech is the lack of support and resources for women in the industry. Women who do enter the tech field may face barriers to advancement, such as a lack of networking opportunities, mentorship, and access to leadership positions. They may also face biases and stereotypes that make it harder for them to succeed



girls who code

Why learning to code can be a good idea:



- Programming can be a valuable skill to have in today's job market, as many employers are looking for people who have experience with software development and other technical skills.
- Learning to program can open up a wide range of career opportunities, from web development and app development to data science and machine learning.
- Programming can be a creative and fulfilling hobby, allowing you to build your own software and applications and explore new ideas and concepts.
- Learning to program can help you improve your problem-solving skills, critical thinking, and attention to detail.
- Programming can be a valuable tool for learning other subjects, such as math, science, and engineering, as it involves using logical thinking and mathematical concepts to solve problems.

Intro Level Games That you can learn to code!!!

- **Hangman:** This is a classic word guessing game where the player has to guess the word one letter at a time. To create this game, you will need to create a list of words, choose a word randomly, and then allow the player to guess letters until they either guess the word correctly or run out of guesses.
- **Tic-tac-toe:** This is a simple two-player game where players take turns placing their symbol (either an X or an O) on a grid. The first player to get three of their symbols in a row (horizontally, vertically, or diagonally) wins the game. To create this game, you will need to create a grid, allow players to take turns placing their symbols on the grid, and check for a winner after each turn.
- **Rock-paper-scissors:** This is a simple game where players choose one of three options (rock, paper, or scissors) and the winner is determined by the rules of the game (rock beats scissors, scissors beats paper, paper beats rock). To create this game, you will need to allow players to choose their option, compare the two options, and determine the winner.
- **Memory match:** This is a game where players have to match pairs of cards by flipping them over two at a time. To create this game, you will need to create a deck of cards, shuffle them, and then allow the player to flip two cards over at a time and try to find matching pairs.

Helpful Coding Apps

Codecademy Go

App offers free beginner-level courses

CodeGym

Teaches beginners Java programming code

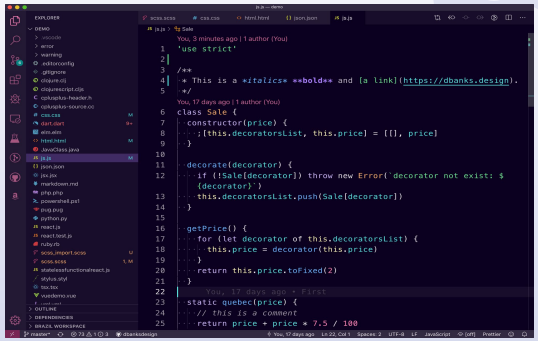
Github

GitHub for iOS lets you move work forward wherever you are. Stay in touch with your team, triage issues, and even merge, right from the app

Grasshopper

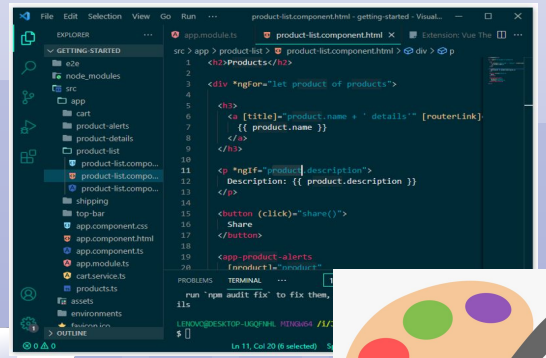
A team of developers at Google created the Grasshopper app to test products. It's also a way for beginning coders to learn JavaScript easily

Coding Themes



Using themes in your code editor can make coding more fun for a few reasons :

- Using a theme can make your code editor more visually appealing and easier on the eyes, help you stay focused and motivated while you're working.
- Many code editors allow you to customize the colors and styles used in your code, which can make your code more organized and easier to read.
- Can also add a personal touch to your code editor, making it feel more like your own space and helping you enjoy the experience of coding even more.



Women who are making history in software engineering

Tracy Chou, Founder and CEO of Block Party

Mina Markham, Staff Engineer at Slack

Elissa Murphy, Vice President of Engineering for Google

Kimberly Bryant, Founder of Black Girls Code

Jade Raymond, Game Producer

Poornima Vijayashanker, Founder of Femgineer

Jennifer Dewalt, Founder of Zube

Our Struggles

- Time Management
- Support Systems
- Partnership
- Work-Life Balance
- Teamwork
- Teaching

“If you teach a girl to code, she'll change the world / teach four other people to code.”

—Girls Who Code

Connect with Us!

Andreea Ibanescu (She/Her)

Computer Science student | Breakthrough Tech AI Fellow @ Cornell Tech

United States · Contact info

492 connections

Open to | Add profile section | More

Apple

Simran Chhatwal (She/Her) · 1st

Special Reviewer for Apple Inc. | B.S in Accounting and Cyber Security Engineering

United States · Contact info

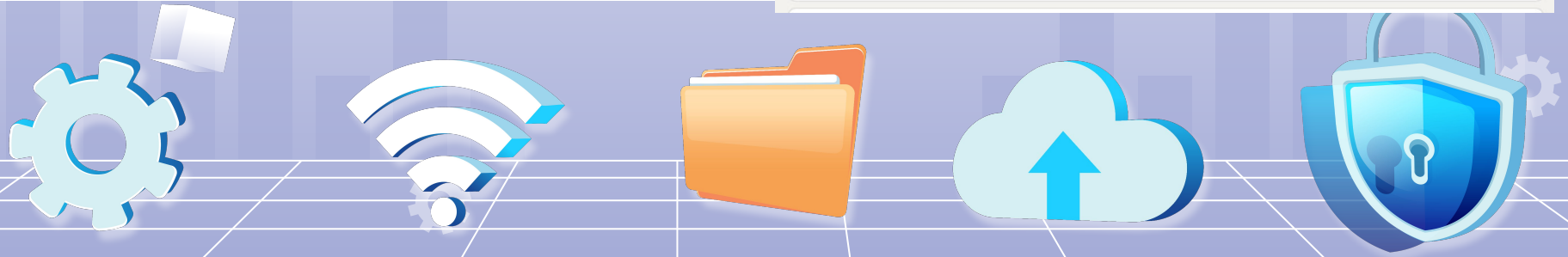
500+ connections

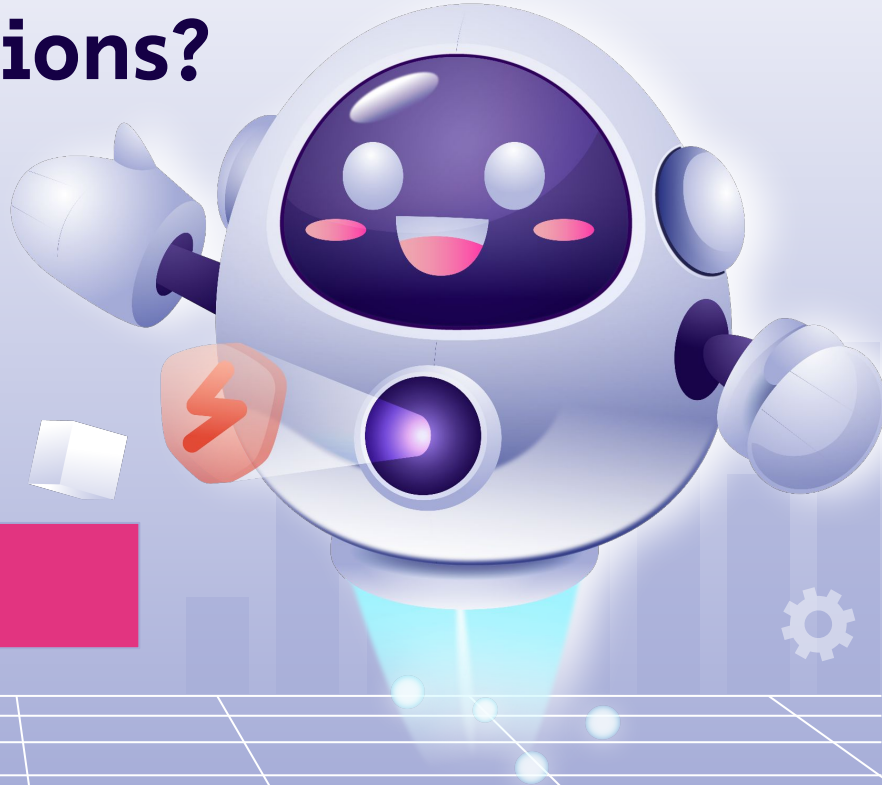
27 mutual connections: Tahsin Hossain, Seoeun Hong, and 25 others

Message | More

Apple

George Mason University - College of Engineering and Computing



Thank You!

Do you have any questions?