

Somerset Coding Club-Scratch Adventure! Course Introduction

2024-2025
Meng Yang



- **Founder of Ms Yang Codecraft Academy**
- **Passionate teacher and advisor for over a decade**
 - **(high school) AP CSA, CS Special Topics, Coding in Python**
 - **(elementary school) Scratch Adventure!, Python Pioneers!**
- **AP Reader: AP CSA**
- **Lakeside Summer School CS Teacher**
- **Former Software Engineer & Program Manager**
- **Master in Computer Science and Software Engineering @UW Bothell with 2 years' teaching**
- **Two sons, age 9 year and 19 months**
- **One cat**

Why Scratch?

- **Easy to Learn:** Scratch uses visual, drag-and-drop blocks that make coding intuitive, even for beginners.
- **Creative Expression:** It empowers students to create their own games, animations, and stories, fostering creativity.
- **Problem-Solving:** Scratch helps students develop logical thinking and problem-solving skills through fun projects.
- **Build Computational Thinking:** By breaking problems down into steps, students learn the core concepts of computer science.
- **Foundation for Future Coding:** Scratch provides a strong base for transitioning to more advanced programming languages later.

Curriculum

- **Module 1: Scratch Basics**
- **Module 2: Mighty Loops**
- **Module 3: Fun with Coordinates**
- **Module 4: Game Design and Development**
- **Module 5: Parallel Coding**
- **Module 6: Final Project**
- **Bonus: AI-Based Scratch (RAISE)**
- **Bonus: Scratch Olympiad**

AI curriculum

- Image classification
- Text classification
- Natural language processing
- Reinforcement learning
- Music generation
- Affective computing
- Gesture recognition
- Social robotics
- Microcontroller robotics
- ...and more!

Class Feature

- **Project-based learning:** Learn programming concepts through real-world examples and objects.
- **Real-world applications:** Connect coding to daily life, making it practical and relatable.
- **Collaboration:** Encourage teamwork and group activities to develop cooperation skills.
- **Presentation skills:** Practice project presentations to improve communication and public speaking.

Calendar

14 sessions:

- Mondays 3:35-5:00pm
- 10/7/2024-2/10/2025
- Breaks: 11/11, 11/25, 1/20, 12/23, 12/30

Student Teaching Assistants

Each class, we have 4-5 high-school volunteer TAs in the classroom

THANKS!
Q&A



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