

Media Computation:

Using Art and Graphics to Teach Computation

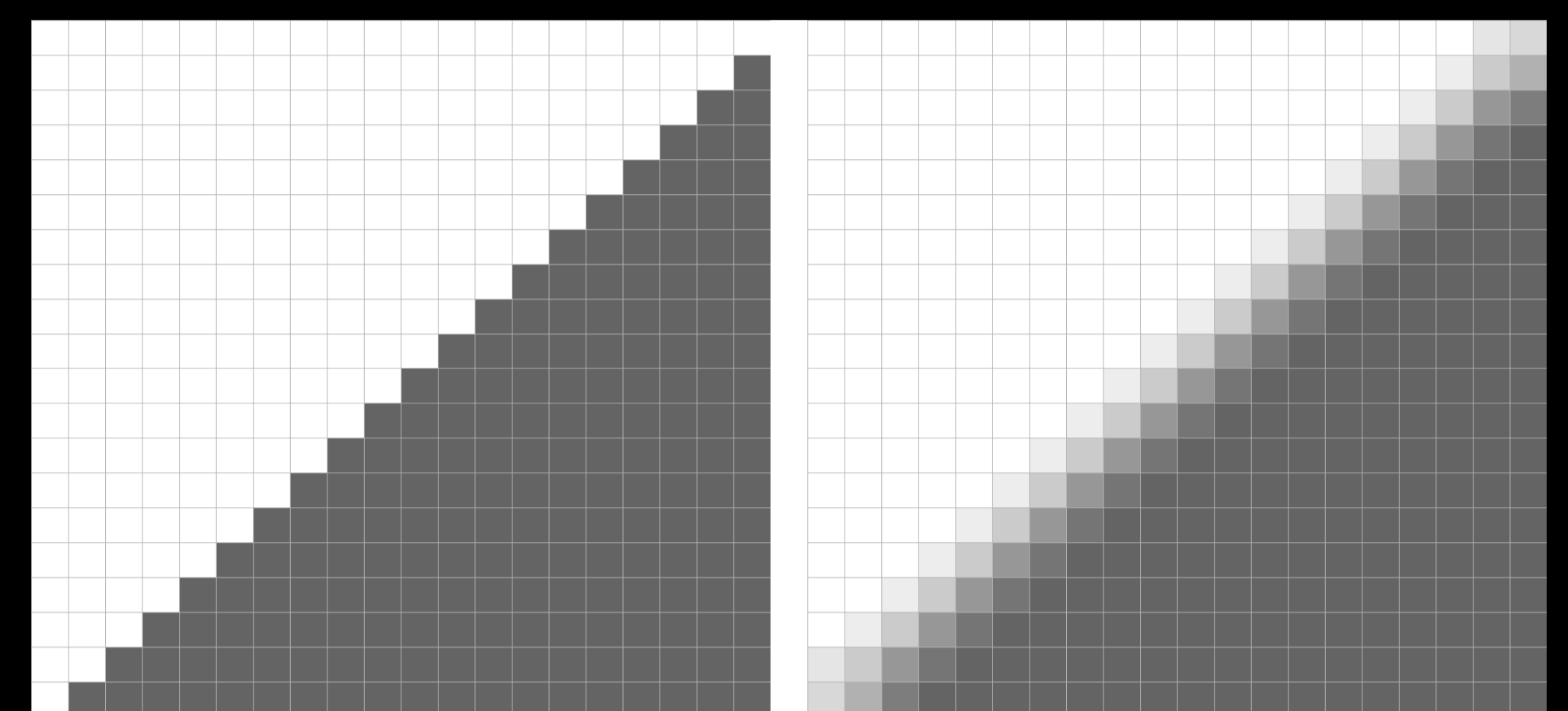
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Media Computation is a new course cross-listed between the Department of Computer Science and the Program for Cinema and Technocultural Studies. It introduces programming, discretization and digital media to (mostly) non-computer science students.

Educational Objectives

- Provide a basic understanding of digital computation
 - Basic programming
 - Discrete representations
- Explain the fundamentals of digital media
- Reach students that would not traditionally enroll in engineering courses
- Provide a back door into computer science for groups that tend not to take it in high school



Anti-aliasing a rasterized line reduces the perception of jaggedness.

Learning Activities and Materials

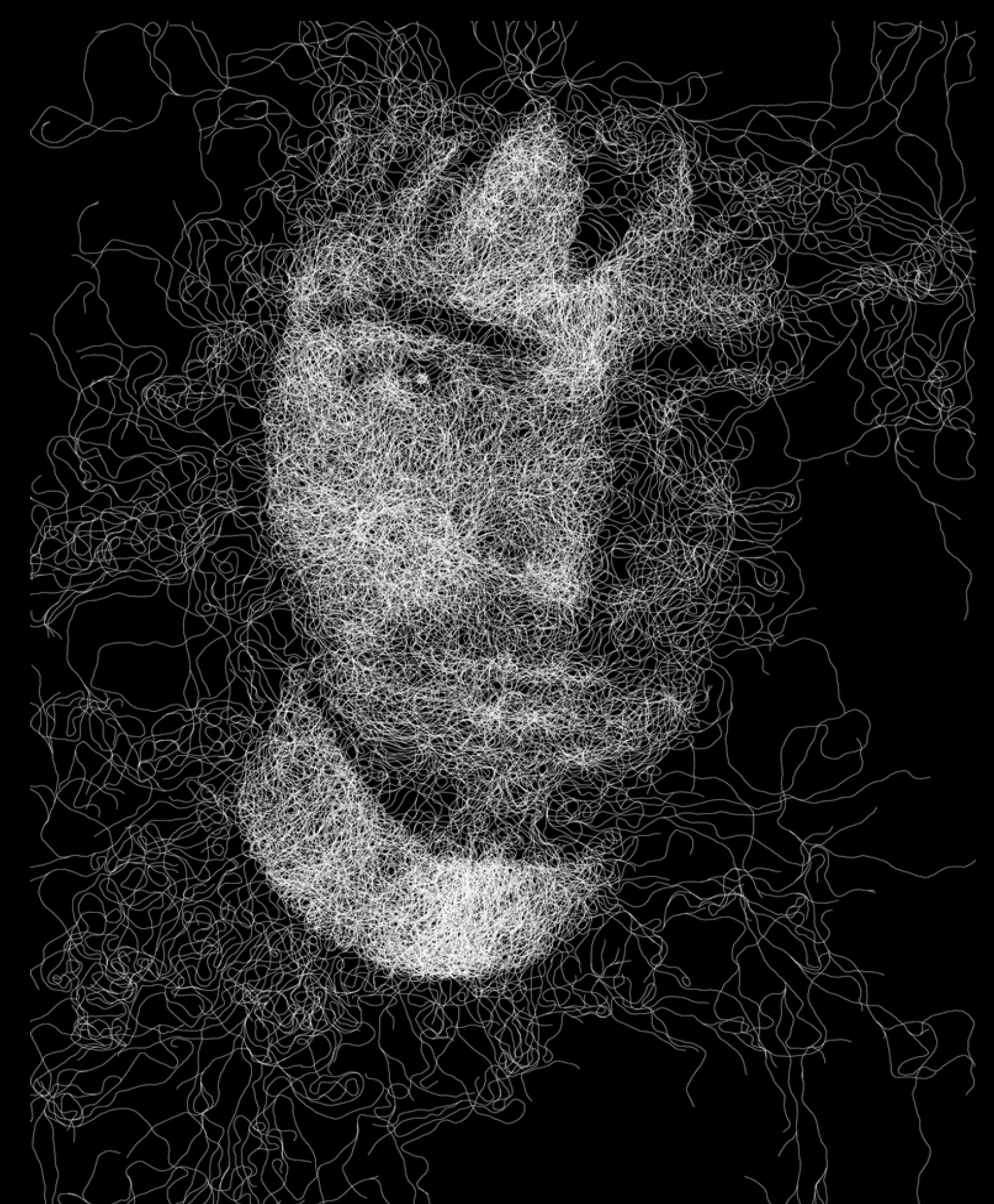
- Use the Processing programming language for easy creation of graphics.
- Work with real programs, doing interesting tasks early.
- Produce images to understand programming concepts.
- Experiment with small group learning.



Imagery created in Processing by Daniel Franke and Cedric Kiefer (unaffiliated artists).

Class or Course Execution

- Large section class
- Previous related classes have been taught in a studio setting.
- Challenge: bring strengths of studio to large format setting
- In class exercises and small group work, labs



Imagery created in Processing by Ryan Alexander (unaffiliated artist).