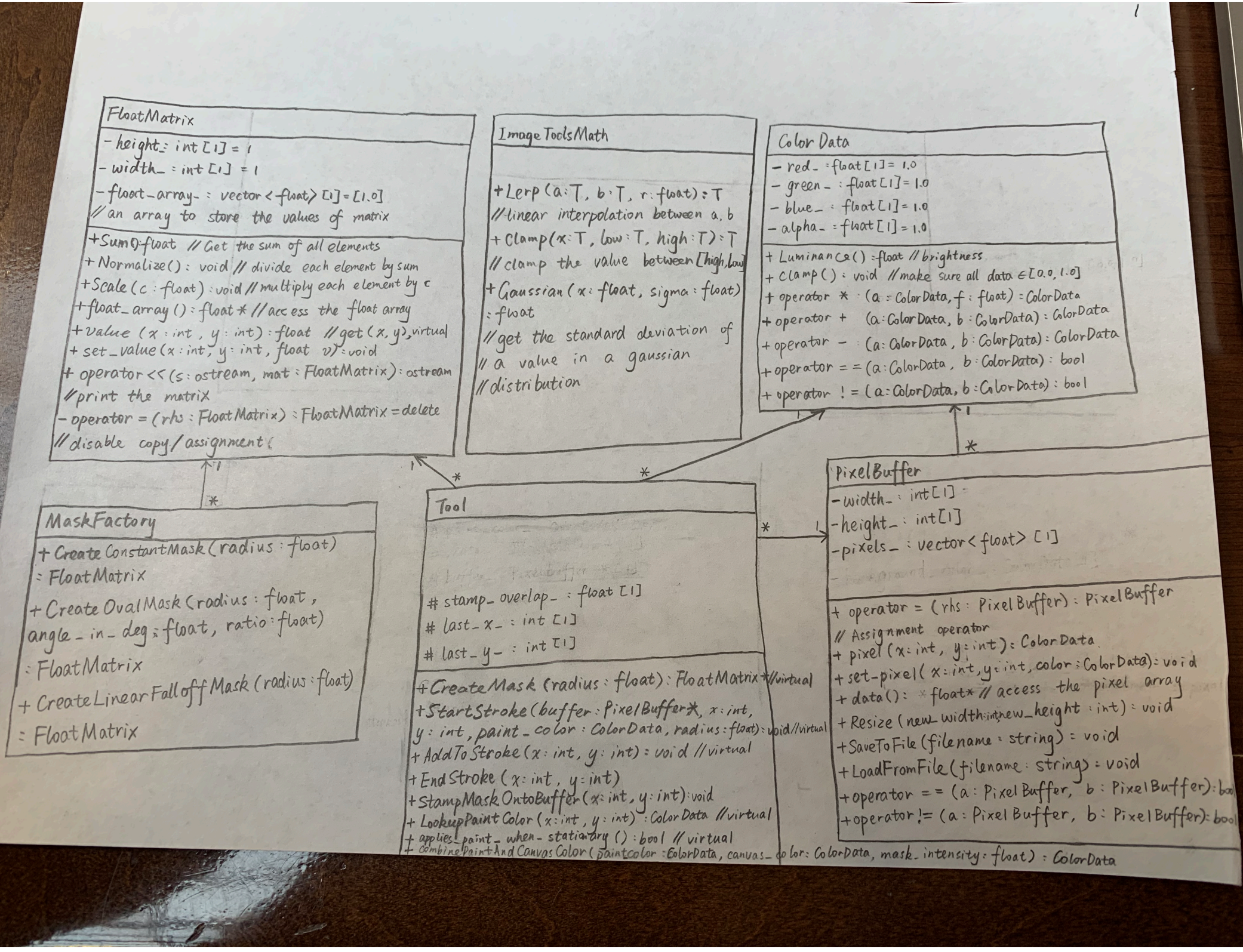
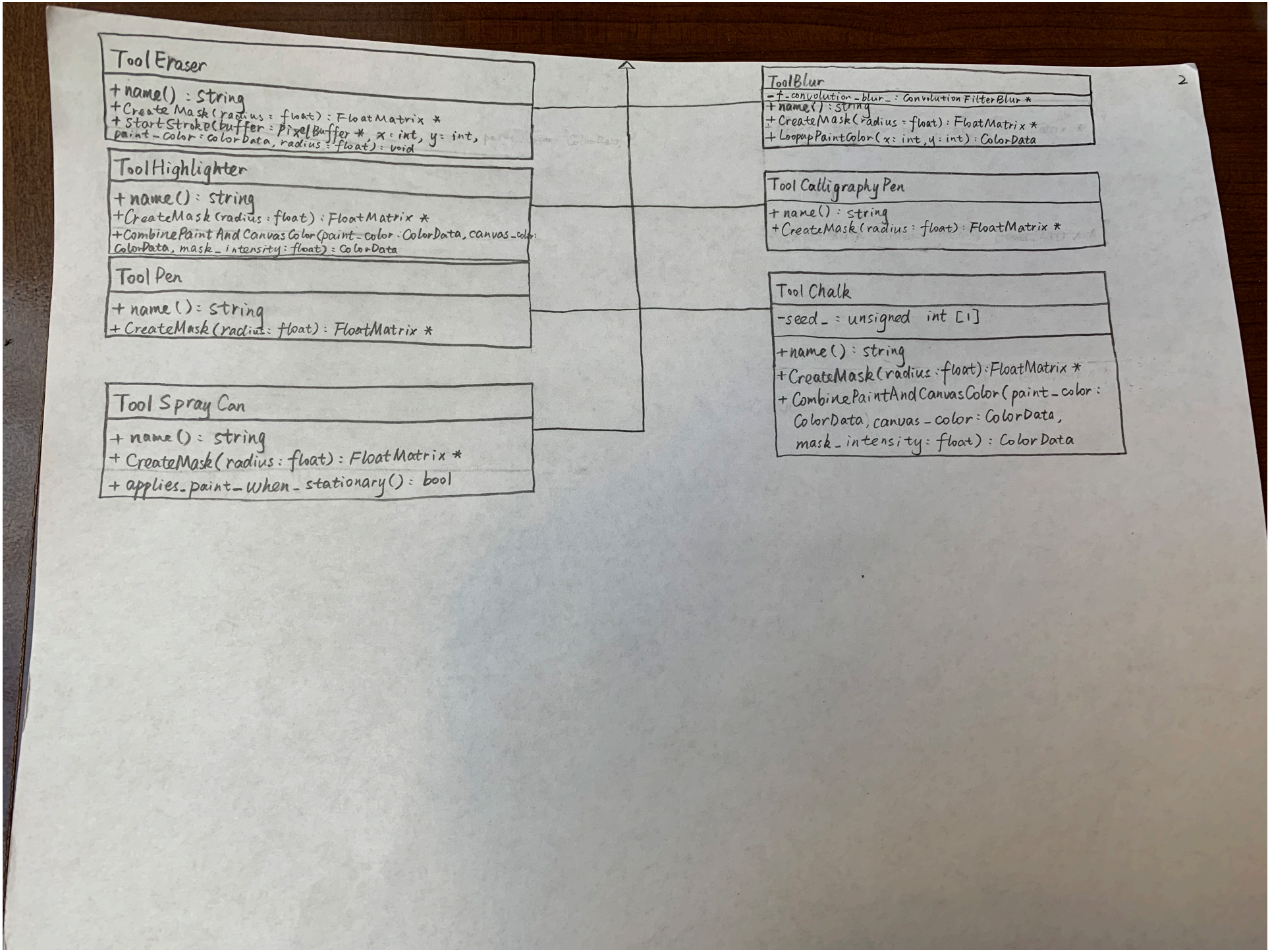
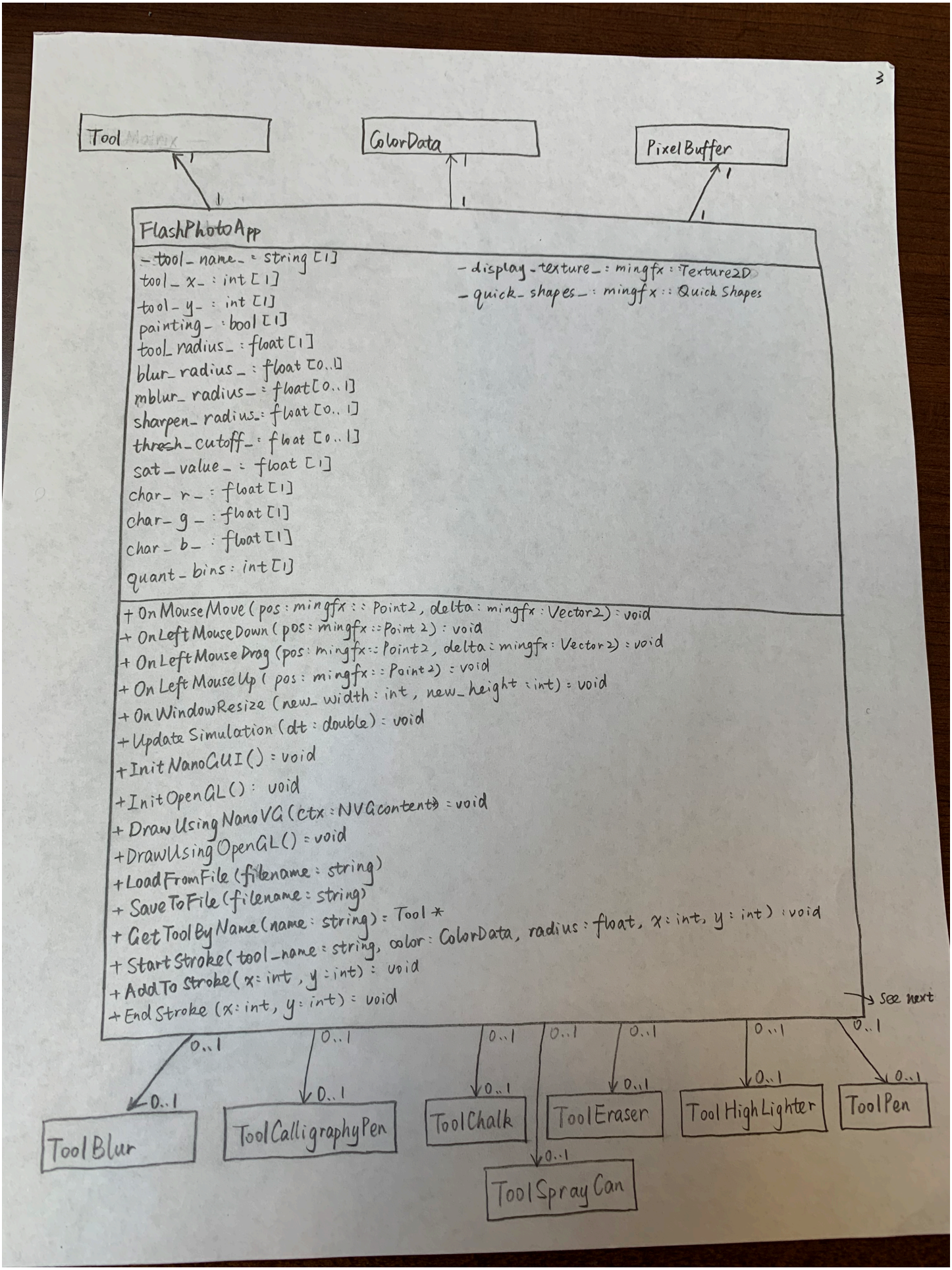

FloatMatrix
- height_ : int [1] = 1
- width_ : int [1] = 1
- float_array_ : vector<float> [1] = [1.0]
// an array to store the values of matrix
+Sum():float // Get the sum of all elements
+ Normalize() : void // divide each element by sum
+Scale (c : float) : void // multiply each element by c
+float_array () : float * // access the float array
+value (x : int , y : int) : float // get (x, y), virtual
+ set_value (x : int, y : int, float v) : void
+ operator << (s : ostream, mat : FloatMatrix) : ostream
// print the matrix
- operator = (rhs : FloatMatrix) : FloatMatrix = delete
// disable copy / assignment
ImageToolsMath
+Lerp (a:T, b:T, r:float) : T
// linear interpolation between a, b
+ Clamp(x:T, low:T, high:T) : T
// clamp the value between [high, low]
+ Gaussian (x: float, sigma : float) : float
// get the standard deviation of
// a value in a gaussian
// distribution
ColorData
- red_ : float [1] = 1.0
- green_ : float [1] = 1.0
- blue_ : float [1] = 1.0
- alpha_ : float [1] = 1.0
+ Luminance() : float // brightness
+ Clamp() : void // make sure all data ∈ [0.0, 1.0]
+ operator * (a : ColorData, f : float) : ColorData
+ operator + (a : ColorData, b : ColorData) : ColorData
+ operator - (a : ColorData , b : ColorData) : ColorData
+ operator == (a : ColorData , b : ColorData) : bool
+ operator != (a : ColorData, b : ColorData) : bool
MaskFactory
+ Create ConstantMask (radius : float) : FloatMatrix
+ Create OvalMask (radius : float, angle_in_deg : float, ratio : float) : FloatMatrix
+ CreateLinearFalloffMask (radius : float) : FloatMatrix
Tool
stamp_overlap_ : float [1]
last_x_ : int [1]
last_y_ : int [1]
+CreateMask (radius : float) : FloatMatrix // virtual
+StartStroke (buffer : PixelBuffer*, x : int, y : int, paint_color : ColorData, radius : float) : void // virtual
+AddToStroke (x : int, y : int) : void // virtual
+EndStroke (x : int , y : int)
+StampMaskOntoBuffer (x : int, y : int) : void
+ LookupPaintColor (x : int , y : int) : ColorData // virtual
+ applies_paint_when_stationary () : bool // virtual
+ CombinePaintAndCanvasColor (paintcolor : ColorData, canvas_color : ColorData, mask_intensity : float) : ColorData
PixelBuffer
- width_ : int [1]
- height_ : int [1]
- pixels_ : vector<float> [1]
+ operator = (rhs : PixelBuffer) : PixelBuffer
// Assignment operator
+ pixel (x : int , y : int) : ColorData
+ set_pixel (x : int, y : int, color : ColorData) : void
+ data() : float* // access the pixel array
+ Resize (new_width : int, new_height : int) : void
+ SaveToFile (filename : string) : void
+ LoadFromFile (filename : string) : void
+ operator == (a : PixelBuffer, b : PixelBuffer) : bool
+ operator != (a : PixelBuffer, b : PixelBuffer) : bool
1
*


ToolEraser
+name() : string
+CreateMask(radius : float) : FloatMatrix *
+StartStroke(buffer : PixelBuffer *, x : int, y : int, paint_color : colorData, radius : float) : void
ToolHighlighter
+name() : string
+CreateMask(radius : float) : FloatMatrix *
+CombinePaintAndCanvasColor(paint_color : ColorData, canvas_color : ColorData, mask_intensity : float) : ColorData
ToolPen
+name() : string
+CreateMask(radius : float) : FloatMatrix *
ToolSprayCan
+name() : string
+CreateMask(radius : float) : FloatMatrix *
+applies_paint_when_stationary() : bool
ToolBlur
-f_convolution_blur_ : ConvolutionFilterBlur *
+name() : string
+CreateMask(radius : float) : FloatMatrix *
+LoopupPaintColor(x : int, y : int) : ColorData
ToolCalligraphyPen
+name() : string
+CreateMask(radius : float) : FloatMatrix *
ToolChalk
-seed_ : unsigned int [1]
+name() : string
+CreateMask(radius : float) : FloatMatrix *
+CombinePaintAndCanvasColor(paint_color : ColorData, canvas_color : ColorData, mask_intensity : float) : ColorData


Tool
ColorData
PixelBuffer
FlashPhotoApp
- tool_name_ : string [1]
tool_x_ : int [1]
tool_y_ : int [1]
painting_ : bool [1]
tool_radius_ : float [1]
blur_radius_ : float [0..1]
mblur_radius_ : float [0..1]
sharpen_radius_ : float [0..1]
thresh_cutoff_ : float [0..1]
sat_value_ : float [1]
char_r_ : float [1]
char_g_ : float [1]
char_b_ : float [1]
quant_bins : int [1]
- display_texture_ : mingfx::Texture2D
- quick_shapes_ : mingfx::QuickShapes
+ OnMouseMove(pos : mingfx::Point2, delta : mingfx::Vector2) : void
+ OnLeftMouseDown(pos : mingfx::Point2) : void
+ OnLeftMouseDrag(pos : mingfx::Point2, delta : mingfx::Vector2) : void
+ OnLeftMouseUp(pos : mingfx::Point2) : void
+ OnWindowResize(new_width : int, new_height : int) : void
+ UpdateSimulation(dt : double) : void
+ InitNanoGUI() : void
+ InitOpenGL() : void
+ DrawUsingNanoVG(ctx : NVGcontext*) : void
+ DrawUsingOpenGL() : void
+ LoadFromFile(filename : string)
+ SaveToFile(filename : string)
+ GetToolByName(name : string) : Tool*
+ StartStroke(tool_name : string, color : ColorData, radius : float, x : int, y : int) : void
+ AddToStroke(x : int, y : int) : void
+ EndStroke(x : int, y : int) : void
see next
0..1
ToolBlur
ToolCalligraphyPen
ToolChalk
ToolEraser
ToolHighLighter
ToolPen
ToolSprayCan

+ MotionBlurDirectionName(dir: MBlurDir): string
+ ApplyBlurFilter(radius: float): void
+ ApplyMotionBlurFilter(radius: float, dir: MBlurDir): void
+ ApplySharpenFilter(radius: float): void
+ ApplyEdgeDetectFilter(): void
+ ApplyThresholdFilter(cutoff_value: float): void
+ ApplySaturateFilter(scale_factor: float): void
+ ApplyChannelsFilter(red_scale: float, green_scale: float, blue_scale: float): void
+ ApplyQuantizeFilter(num_bins: int): void
- InitializeBuffers(initial_color: ColorData, width: int, height: int): void