

Resume Appendix

- **Rendering**
 - Win32
 - Vulkan
 - DirectX 12
 - OpenGL
 - WebGL
 - WebGPU (web/Dawn)
 - Forward, Deferred, Visibility
 - Ray-tracing
 - PBR
 - Deferred materials
 - AA
 - Tonemapping
 - Atmospheric scattering
 - Lightmapping
 - Single-pass mipmap generation
- **IO**
 - FBX, OBJ/MTL, PNG, QOI and TTF decoding
 - QOI encoding
 - INFLATE
- **Physics**
 - Rigid body simulation
 - Semi-Implicit Euler integration
 - Sequential Impulses
 - Friction
 - Collision detection with SAT and GJK
 - 2D joint constraints
 - 2D warm starting
 - 3D polygon clipping with Sutherland-Hodgman
 - Experiments in 2D CCD
- **Maths**
 - [Library](#)
 - Vectors, matrices, quaternions
 - Trigonometry
 - Barycentric coordinates
 - Intel intrinsics (SSE, SSE2, AVX, AVX2, SVML)
- **Programming language**
 - Compiler analysis stages
 - GLSL code generation
 - AST debugging

- LSP server
- JSON parser
- **UI**
 - Immediate/retained
 - Text, images
 - Layout engine
 - Event handling
 - Styles & customization
- **Typography**
 - Bitmap and True-Type fonts
 - Glyph rasterization
 - SDF glyph map generator
 - UTF-8 decoding
- **Other**
 - Logger
 - Profiler
 - Sparse ECS
 - Memory allocator
 - Emscripten
 - Git