**Michael Wolf-Sonkin**

michaelwolfsonkin@gmail.com | (646) 618-2611 | [github.com/mikee478](http://github.com/mikee478)

**EDUCATION**

**Columbia University** August 2021 – December 2022

Master of Science, **Computer Science** Cumulative GPA: 3.93/4.0

**Stony Brook University** August 2018 – May 2021

Bachelor of Science, **Computer Science** Cumulative GPA: 3.92/4.0

Bachelor of Science, **Applied Mathematics**

**SKILLS**

Technical: **C, C++, LabWindows/CVI, Python, OpenGL, Git**

Courses: **Computer Graphics, Physically Based Animation, Computational Geometry, Competitive Programming**

**WORK EXPERIENCE**

**J.G. Smith Associates Inc.** | Setauket, NY Summer 2021

*Software Development Contractor*

* Created LabWindows/CVI test tool for DC-DC converters.

**Applied Research Associates Inc.** | Raleigh, NC Summer 2020

*Software Development Intern*

* Refined the 3D model export pipeline to view subdivided tunnel facilities on a 3D representation of the earth.

**BitWize Corp.** | Melville, NY June 2019 – February 2020

*Software Development Contractor*

* Developed LabWindows/CVI application to monitor heater and actuator status for onboard deicing systems.

**Cox & Company Inc.** | Plainview, NY Summer 2017, 2018

*Software Development Intern*

* Created LabWindows/CVI program to verify behavior of fuzzy signals of deicing controller in extreme temperatures.

**PERSONAL PROJECTS**

[**Virtual Rubik’s Cube Solver**](https://github.com/mikee478/cube-solver) – *Python*

* Utilized OpenGL for 3D simulations.
* Implemented Rubik’s Cube solving algorithms, specifically CFOP.

[**Drift Simulation**](https://github.com/mikee478/drift-simulation) – *C++*

* Implemented Perlin noise in GLSL to create a fast, fluid-like simulation.
* Inspired by the macOS Drift screensaver.

**Ray Tracer** – *C++*

* Developed during computer graphics course at Columbia University.
* Includes Phong shading, shadows, antialiasing, reflection, refraction, mesh rendering, texture mapping, and BVH.

[**Polygon Utilities**](https://github.com/mikee478/polygon-utilities) – *Python*

* Interactive tool to build simple polygons.
* Utilities include ear clipping triangulation, convex hull algorithms, triangulation point sampling, and point visibility.

**EXTRACURRICULAR ACTIVITIES**

**Competitive Programming** September 2019 – December 2022

* Stony Brook University and Columbia University competitor.
* ICPC Greater NY Regional, 2021 – 3rd Place.
* Collaborated with team in weekly practice contests which leverage algorithmic problem solving.

**ADDITIONAL**

**Awards**

* Columbia University Dean’s List – All Semesters
* Stony Brook University Dean’s List – All Semesters

**Interests** – Rock Climbing • Rubik’s Cubes • Cycling