



# SEBASTIAN H. PARK

[www.sebbypark.com](http://www.sebbypark.com) | [linkedin.com/in/sebastian-park](https://www.linkedin.com/in/sebastian-park)

## SKILLS AND INTERESTS

Software Development	Video Prod. and VFX	Interpersonal Enthusiasm
Computer Graphics	Blender	Group Leadership
Game Development	Adobe Illustrator	Creativity
Natural Language Processing	Graphic Design	The Uvular Trill
Object-Oriented Programming	Vocal Arrangement	
Linear Algebra	Jazz Improvisation	Mandarin Chinese
Computer Systems	Beatboxing	Spanish

### Technical:

C, C++, C#, Unity, Python, OpenGL, Three.js, Java, JS, HTML, CSS, Flutter, Dart, Node, Typescript, React, Android (Kotlin), Racket, ReasonML, Git, Linux, Mac

## EXPERIENCE

### COMPUTER GRAPHICS HEAD TEACHING ASSISTANT, BROWN UNIVERSITY

Providence, RI | Fall 2022 - Fall 2024

Taught section of 20+ students, held office hours, personally mentored 10+ students, and developed coursework for CSCI 0170: An Integrated Introduction, CSCI 0200: Data Structures and Algorithms, and CSCI 1230: Intro to Computer Graphics.

### COMPUTATIONAL RESEARCH INTERN, NASA

New York, NY | Summer 2024

Worked with remote sensing scientists on NASA's PACE mission to develop novel computational models for phytoplankton UV light interaction to be used for satellite algorithms.

### GAME DEVELOPMENT INTERN, NASA

Remote | Summer 2023

Worked with team of four to develop a science based climate change education game for environmental science curriculums. Worked on game graphics, shading, and climate simulation.

### SOFTWARE DEVELOPMENT INTERN, M. STEINERT & SONS

Boston, MA | Summer 2022

Single-handedly created proprietary contact transfer and management software in Node.js for piano dealership with 20,000+ clients.

### FLORIST, SHAW'S AND STAR MARKET

Chestnut Hill, MA | Summer 2022 - Winter 2023

Cut, watered, and sold flowers, arranged, and interacted with dozens of customers per day.

## RECENT PROJECTS

### PATHTRACER

2024

Created a path tracer, a Monte-Carlo based 3D renderer, with area lighting, soft shadows, diffuse, glossy, and mirror surfaces, attenuative refraction, and depth of field.

### OCEAN WAVE SIMULATION

2024

Used Fast Fourier Transform and ocean optics to computer simulate realistic water in real time.

### CHERRY BLOSSOM PAINTING [CHERRYBLOSSOMGARDEN.NETLIFY.APP](https://cherryblossomgarden.netlify.app)

2023

Used THREE.js, OpenGL to create a procedurally generated cherry blossom garden with interactive L-System tree and water simulation, rendered to look like a Nihonga painting.

### REALTIME SCENE VIEWER AND MULTITHREADED RAYTRACER

2022

Realtime graphics engine with C++ and OpenGL to parse JSON data and render a traversable scene with camera rotation, adaptive level of detail. Created a multi-threaded raytracer to render the parsed scene with Phong lighting model with point lights, spot lights, anti-aliasing, texture mapping, recursive reflections, super sampling.

## CONTACT

✉ [sebby@brown.edu](mailto:sebby@brown.edu)

☎ (617) 610 9610

🌐 [www.sebbypark.com](http://www.sebbypark.com)

🏠 69 Brown Street #8419  
Providence RI 02912

## EDUCATION

### BROWN UNIVERSITY

Providence, RI, 2021-25 (exp)

Computer Graphics,  
Linguistics. GPA: 4.0

#### Coursework:

Computer Graphics  
Advanced Computer Graphics  
Comp. Photography  
Deep Learning  
Data Structures and Algo.  
Computer Systems  
Linear Algebra  
Theory of Computation  
Computational Linguistics  
Software Security

Discrete Math

#### Clubs:

Game Design Club  
Acapella (beatbox & director)  
Jazz Band (Piano)

### MILTON ACADEMY

Milton, MA, 2017-2021

SAT: M-770, V-780

#### Awards:

Head of School Award,  
Cum Laude Society,  
Abell Prize for Music  
The Chinese Prize  
The Computer Science Prize  
Duncan Prize for Math  
The Science Prize  
Derby Prize for Math.