

# Ian Scilipoti

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## PROFESSIONAL OVERVIEW

Creative software engineer passionate about computer graphics and interactive user experiences. Awarded Best Computer Science Thesis for research in virtual reality sculpting. Driven by challenges and proficient at learning new technology. Interdisciplinary background of visual FX, hardware prototyping, and procedural content generation.

## SKILLS

**General:** Game dev • VR • Hardware prototyping • Web dev • Image/video/music production • 3D modeling/simulation  
**Programming Languages:** C# • C • Python • Javascript • Java • HTML • CSS • GLSL • CG

## WORK EXPERIENCE

- |   |                              |
|---|------------------------------|
| <b>Content Creator, Unity3D Asset Store</b>   | <b>2011 - present</b>        |
| <ul style="list-style-type: none"><li>• Design visual FX using assets made with Gimp and state-of-the-art 3D simulations in Blender.</li><li>• Build supporting software and editor tools using C#.</li><li>• Create educational and promotional materials and work with clients on integration.</li></ul>  |                              |
| <b>Independent Contractor, USGS Water Science Center</b>  | <b>Feb 2020 - Aug 2020</b>   |
| <ul style="list-style-type: none"><li>• Full Stack Development of web app for generating station identification numbers at new USGS stream gauge locations nationwide.</li><li>• Worked with USGS personnel to design intuitive front-end using HTML, JQuery, and Bootstrap.</li><li>• Researched and applied back-end algorithms in Python to solve complex software challenges involving multiple uncertain/incomplete real-world datasets.</li></ul> |                              |
| <b>Programming Intern, Velan Studios, Troy, NY</b>  | <b>June 2019 - Sept 2019</b> |
| <ul style="list-style-type: none"><li>• Collaborated with a team of five using AGILE methodology to improve/maintain a proprietary game engine built in C.</li><li>• Worked with artists, level designers, and other end-users to implement practical features.</li></ul>   |                              |

## PROJECT EXPERIENCE

- |  |             |
|--|-------------|
| <b>Portfolio Website</b> ( <i>See full portfolio at <a href="http://ianscilipoti.com/projects">ianscilipoti.com/projects</a></i> )   | <b>2021</b> |
| <ul style="list-style-type: none"><li>• Modern React / Gatsby / SASS web stack.</li><li>• Creative use of Voronoi diagrams for website layout and page transitions.</li><li>• Designed project videos with custom music and captivating visuals.</li></ul>   |             |
| <b>Hardware Audio/Music Visualizer</b>   | <b>2021</b> |
| <ul style="list-style-type: none"><li>• Explored connections between audio and hardware to facilitate development of a novel mechanism for audio visualization utilizing integrated circuits, microcontrollers, and physical actuators.</li><li>• Solved engineering/logistical challenge of developing an idea into a soldered working prototype.</li></ul> |             |
| <b>Procedural City Generation</b>  | <b>2020</b> |
| <ul style="list-style-type: none"><li>• Researched and implemented data structures and algorithms for modeling intricate city layouts.</li><li>• Focused on incorporating scalable design patterns and versatile software structure in C#.</li></ul>   |             |
| <b>Senior Thesis Research, Union College</b>   | <b>2019</b> |
| <ul style="list-style-type: none"><li>• Researched and developed virtual reality interfaces for intuitive 3D modeling / sculpting in Unity3D.</li><li>• Coordinated with supervisors on writing in-depth proposals and project reports.</li><li>• Conducted a user study using scientific methodology to evaluate potential user interfaces.</li></ul>       |             |
| <b>Seward Fellowship Research, Union College</b>   | <b>2019</b> |
| <ul style="list-style-type: none"><li>• Partnered with geology faculty on improving simulations of river basin formation.</li><li>• Optimized Java code for CPU parallelization and mass data collection.</li></ul>  |             |

## EDUCATION

Union College, NY • B.S. Computer Science (2019) • *Summa Cum Laude* • *Phi Beta Kappa* • *Sigma Xi* • *Best CS Thesis*