



GARRETT TONGUE

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SOFTWARE ENGINEER

CONTACT

917-224-2939

garrettjtongue@gmail.com
New York, NY

WEBSITES

Personal Site

<https://gtongue.github.io/PersonalSite/>

Github

<https://github.com/gtongue/>

LinkedIn

<https://www.linkedin.com/in/garrett-tongue-011286138/>

SKILLS

- JavaScript
- Ruby
- Rails
- React/Redux
- HTML/CSS
- Java
- C#
- OpenGL/WebGL
- Git
- Matlab
- SQL
- C++
- Unity

EDUCATION

HOBART COLLEGE
B.S. Computer Science
B.S. Physics

2012 – 2017

WORK EXPERIENCE

JUNIOR ENGINEER INTERN
City State Entertainment, Fairfax, VA

Summer 2015 & Summer 2016

- Designed WebAPI for in office use to easily retrieve game statistics |C#|
- Developed website using that API to display information on TV's |HTML, CSS|
- Implemented undo and redo in their 3D building system |C++|
- Engineered mapping tool to convert the 3D world into a 2D representation |C#|

WEB DEVELOPMENT INTERN
Lerentech Solutions, Syracuse, NY

Summer 2014

- Used SEO to increase customers website traffic |HTML|
- Worked directly with customers to implement new features |HTML|
- Managed schedule to allow myself to meet deadlines

TECHNICAL EXPERIENCE

WEBGL WAVE SIMULATION

An interactive 3D wave simulation

|HTML, Vanilla JavaScript, WebGL, and GLSL|

Live - <https://gtongue.github.io/WebGLWater/>

Github - <https://github.com/gtongue/WebGLWater>

- Programmed simulation that renders waves in 3D using modern WebGL
- Wrote vertex shader to calculate the waves efficiently on the GPU
- Used the gerstner wave function to calculate what the vertex height should be
- Designed UI allowing users to change amplitude, wavelength, velocity, and color

PROGRAMMING 200

A fullstack application designed to teach beginners programming

|Ruby, Rails, React, Redux, SQL|

Live - <http://www.programming200.com>

Github - <https://github.com/gtongue/Programming101>

- Engineered a system to run user inputted JavaScript with error handling
- Created a working console so users can debug their code using console log
- Wrote a testing library in order to see if users have completed the challenges
- Designed database complex schema to allow users to save files
- Programmed backend WebAPI to store user information and host website

CS ASSISTED TRADING

Software used to assist in market research and develop trading strategies

|Java, JavaFX, Tradestation EPL|

Github - <https://github.com/gtongue/StockTool>

- Aquired data through API requests and parsing HTML pages
- Used data analysis to compile data in excel sheets
- Developed trading algorithms based on data in Tradestation's EPL
- Managed brokerage account and actively trade based on results
- Presented findings at Hobart and William Smith Senior Symposium