

Thomas Skinner

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Work Experience

Software Engineer @ Airtime

April 2020 - Present

- Lead and architected video playing technology for new consumer facing web client. Performed key architecture decisions such as introducing Typescript to increase codebase maintainability.
 - Leveraged web technologies including web sockets, web RTC, to develop a library that enabled browsers to communicate live video/audio through the proprietary media architecture.
 - Created uniform API for rendering multiple media formats, utilized encryption technologies for streaming DRM content.
- Worked on scaling resource intensive distributed systems serving thousands of users. Leveraged C++ to improve critical components that carried real time video/voice communication.
- Responsible for fixing critical bugs including ones that were important to call quality and product. My work was demonstrated to the founder Sean Parker.
- Mentored new hire with regular one-on-one, going over codebase architecture, and best practices.

Software Engineer @ Susquehanna International Group

June 2018 - Aug 2018

- Created robust and performant parsers for previously untapped market data feeds.
- Developed a data analyzation tool to help engineers interpret records of market data and to provide insights into market events. The tool is feature-rich and highly configurable. It includes a large selection of statistics and the option of either graphical or text output.
- Contributed to a large and performance critical c++ code base.

Computer Science Tutor *self-employed*

June 2016 - Nov 2017

- Mentored college level students with their programming abilities using online tools.

Education

B.S. in Computer Science 3.7 GPA

January 2020

Rutgers University – New Brunswick

Technical Skills (non-exhaustive list)

Excellent languages: Scala, Golang, C++, Javascript, Typescript, Python

Proficient languages: Haskell, Clojure, SQL, Rust, C#, Java, HTML, CSS, Bash

Operating systems: Linux, MacOS, Windows 10

Web tools: Webpack, React, NextJS, Node, Gulp, WebRTC, GraphQL

Other tools: VIM, Git, Tensorflow, OpenGL, Postgres, MongoDB, CMake

Hobby Projects

Vaccine appointment finder

2021

Created a webscraper that generated alerts about newly available covid vaccine appointments.

Applying reinforcement learning to market data

2019

Project which includes AWS, Javascript, Node, Rxjs, and Tensorflow, to record market data and learn from it to ultimately develop a policy for cryptocurrency trading.

C++ software renderer

2017

Uses highly efficient SIMD vector instructions / optimized C++. Renders octree data structure with software occlusion culling.

Java and OpenGL graphics engine

2014

Features real time lighting and shadows. Uses shadow volume algorithm to produce sharp and realistic shadows. Uses traditional meshing techniques for object rendering.