**Spencer Yue**

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**Education *Bachelor of Science, Computer Engineering Honors***, May 2019

The University of Texas at Austin

GPA: 3.83/4.00

**Skills** Python, JavaScript, MATLAB, C++, CUDA C++, C, Java, CSS, HTML, TensorFlow, Bash

**Work Experience *Tietronix Software Inc.***, *Software Intern (Summer 2018)*

* Designed an ultrasound imaging simulator implementing the Spatial Impulse Response algorithm on the GPU with CUDA.
* Exposed a Python API with pybind11 to manage GPU memory via PyTorch Tensors.
* Configured build system with CMake, Ninja, and clang++/lld on Windows for fast builds.
* See[*https://github.com/spenceryue/OpenBCSim*](https://github.com/spenceryue/OpenBCSim).

**Projects *videomag*** *(*[*https://github.com/spenceryue/videomag*](https://github.com/spenceryue/videomag)*)*

* Built a web application implementing the Eulerian Video Magnification algorithm to visualize small changes from a user’s video or web camera.
* Wrote C implementation based on the original authors’ research paper and MATLAB code.
* Interfaced with JavaScript to run in browser by compiling to WebAssembly with emscripten.

***StudyParty*** *(*[*https://github.com/spenceryue/chairs*](https://github.com/spenceryue/chairs)*)*

* + - Built a web application in vanilla HTML, JavaScript, and CSS to share one’s location on campus with an interactive 3D interface.
    - Designed and animated 3D object models using CSS transforms and Sass preprocessing.
    - Researched browser rendering process and tested performance of various animation techniques with SVG, JavaScript, and CSS.

***Pintos*** *(private repo, no link)*

* Built the process scheduler, user program support, virtual memory manager, and file system modules of the Pintos operating system in C.
* Debugged multi-threaded programs in GDB.
* Practiced code review, pair programming, and version control (Git).

**Courses *Computer Engineering:*** Operating Systems, Data Science Principles / Lab, Algorithms,Software Design 1 / 2 / Lab, Digital Image & Video Processing, Linear Systems and Signals, Distributed Systems, Intro to Linux, Digital Logic Design

***Math:*** Real Analysis I / II / III, Topology I, Number Theory, Linear Algebra, Discrete Mathematics,Stochastic Processes, Probability I, Differential Equations, Calculus I / II / III

**Awards** Silver Medal in Week of Code 36 HackerRank Competition (2018)

Silver Medal in HourRank 25 HackerRank Competition (2018)

Noble Educational Fund Scholarship of $15,000 (2014)

UT Austin Engineering Honors Program, Scholarship of $5,000 (2014)