

## Spencer Yue

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<b>Education</b>	<b><i>Bachelor of Science, Computer Engineering Honors</i></b> , May 2019 The University of Texas at Austin GPA: 3.83/4.00
<b>Skills</b>	Python, JavaScript, MATLAB, C++, CUDA C++, C, Java, CSS, HTML, TensorFlow, Bash
<b>Work Experience</b>	<b><i>Tietronix Software Inc., Software Intern (Summer 2018)</i></b> <ul style="list-style-type: none"><li>▪ Designed an ultrasound imaging simulator implementing the Spatial Impulse Response algorithm on the GPU with CUDA.</li><li>▪ Exposed a Python API with pybind11 to manage GPU memory via PyTorch Tensors.</li><li>▪ Configured build system with CMake, Ninja, and clang++/lld on Windows for fast builds.</li><li>▪ See <a href="https://github.com/spenceryue/OpenBCSim">https://github.com/spenceryue/OpenBCSim</a>.</li></ul>
<b>Projects</b>	<b><i>videomag</i></b> ( <a href="https://github.com/spenceryue/videomag">https://github.com/spenceryue/videomag</a> ) <ul style="list-style-type: none"><li>▪ Built a web application implementing the Eulerian Video Magnification algorithm to visualize small changes from a user's video or web camera.</li><li>▪ Wrote C implementation based on the original authors' research paper and MATLAB code.</li><li>▪ Interfaced with JavaScript to run in browser by compiling to WebAssembly with emscripten.</li></ul> <b><i>StudyParty</i></b> ( <a href="https://github.com/spenceryue/chairs">https://github.com/spenceryue/chairs</a> ) <ul style="list-style-type: none"><li>▪ Built a web application in vanilla HTML, JavaScript, and CSS to share one's location on campus with an interactive 3D interface.</li><li>▪ Designed and animated 3D object models using CSS transforms and Sass preprocessing.</li><li>▪ Researched browser rendering process and tested performance of various animation techniques with SVG, JavaScript, and CSS.</li></ul> <b><i>Pintos</i></b> ( <i>private repo, no link</i> ) <ul style="list-style-type: none"><li>▪ Built the process scheduler, user program support, virtual memory manager, and file system modules of the Pintos operating system in C.</li><li>▪ Debugged multi-threaded programs in GDB.</li><li>▪ Practiced code review, pair programming, and version control (Git).</li></ul>
<b>Courses</b>	<b><i>Computer Engineering:</i></b> 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  <b><i>Math:</i></b> Real Analysis I / II / III, Topology I, Number Theory, Linear Algebra, Discrete Mathematics, Stochastic Processes, Probability I, Differential Equations, Calculus I / II / III
<b>Awards</b>	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)