# **Spencer Yue**

10624 Galsworthy Ln Austin, TX 78739 spenceryue@utexas.edu 405-308-7014

Education Bachelor of Science, Computer Engineering, May 2019

The University of Texas at Austin

GPA: 3.83/4.00

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

### **Projects** *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 research paper and authors' MATLAB code.
- Interfaced with JavaScript to run in browser by compiling to WebAssembly with emscripten.

#### **Pintos**

- 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).

## **Cpp** (https://github.com/spenceryue/Cpp)

- Analyzed the CUDA C++ compilation process and built a wrapper API to interface with CUDA kernels and compile independently of Visual Studio (on Windows).
- Explored features of C++17, template meta-programming, STL, and best practices.
- Learned to use CMake to manage and customize build configurations.

### **StudyParty** (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.

### **Courses**

**Computer Engineering:** Operating Systems, Data Science Principles & Lab, Algorithms, Software Design 1 & 2 & Lab, Digital Image & Video Processing, Linear Systems and Signals, Digital Signal Processing, Distributed Systems

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

Online Courses: Intro to Parallel Programming, Web Developer Bootcamp

#### **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)