Spencer Yue

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Education

Bachelor of Science, Computer Engineering Honors, May 2019
The University of Texas at Austin
GPA: 3.84/4.00

Objective

Internship in front-end web development.

Skills

React, JavaScript, CSS/Sass, Python, TensorFlow, C++/CUDA C++, C, Java, MATLAB, Bash/fish

Work Experience

Tietronix Software Inc., *Software Intern (June 2018 – August 2018)*

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

Projects

Solar Monitoring Project *(https://github.com/santoso-solar-monitoring-project/) (Ongoing)*

- Designing a real-time dashboard web application to monitor solar panels at the UT Engineering Education and Research Center.
- Using React, D3, three.js, TypeScript, Webpack, Storybook, Jest, and Google Firebase.
- Gaining experience in JSON Web Token authentication, React Hooks, and FLIP animation.

videomag *(https://github.com/spenceryue/videomag) (Fall 2017)*

- Built a web application implementing the Eulerian Video Magnification algorithm to visualize small changes from a video or user's web camera in real-time.
- 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) (Spring 2017)*

- 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, Algorithms, Software Design I/II/Lab, Data Science Principles/Lab, Digital Image & Video Processing, Digital Signal Processing, Linear Systems and Signals, Distributed Systems, Intro to Linux, Digital Logic Design, Senior Design

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

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)