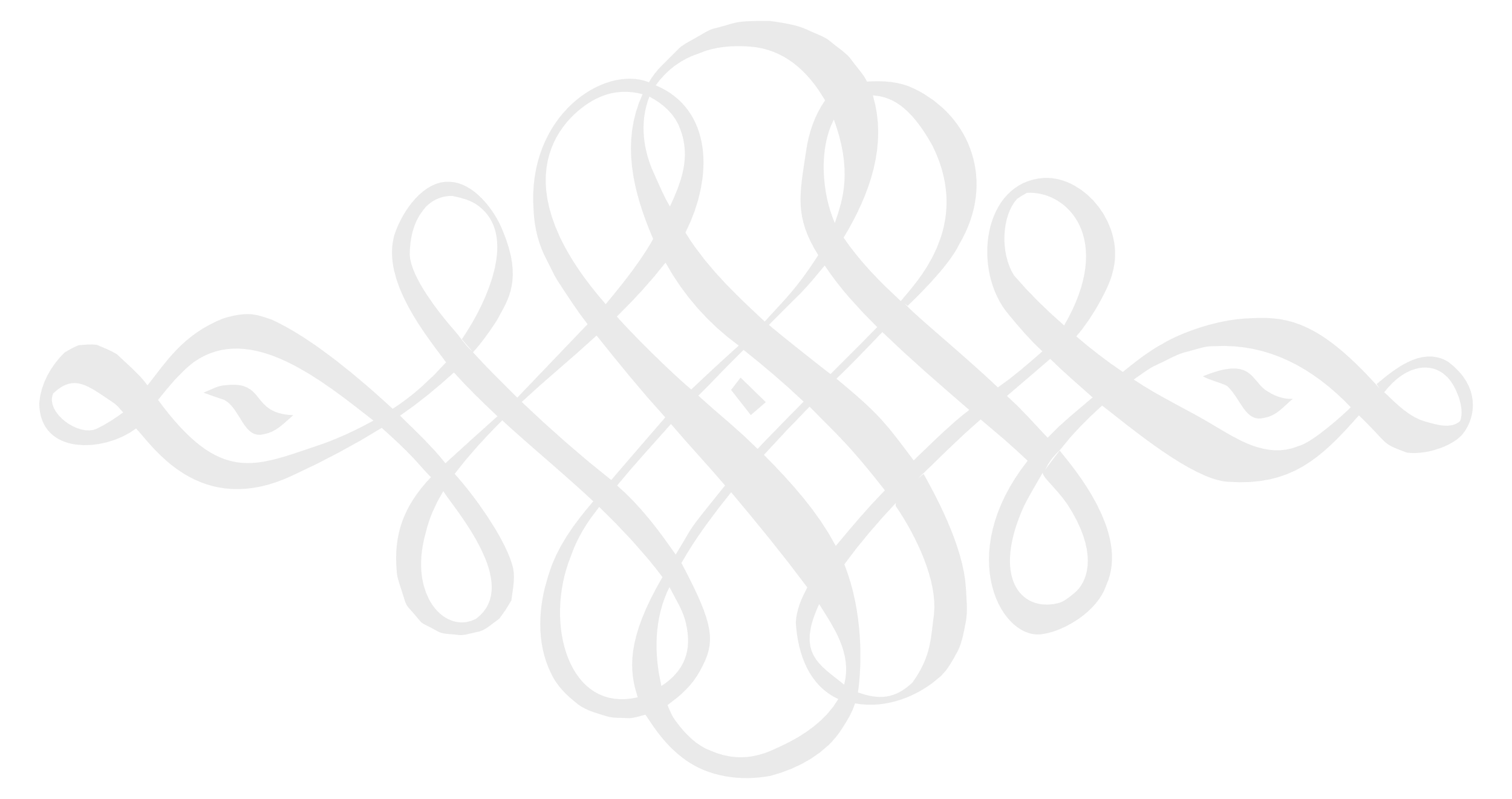
Spencer Yue

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spenceryue@utexas.edu 405 308 7014



OBJECTIVE Summer internship in software engineering or web development.

EDUCATION **Bachelor of Science, Computer Engineering Honors** (May 2019)

The University of Texas at Austin

GPA: 3.84/4.00

SKILLSTypeScript/JavaScript, Python, C++, CUDA, React

EXPERIENCE

WORK **Tietronix Software Inc., Software Intern** (Jun 2018 – Aug 2018)

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

* Modified an [open-source](https://github.com/sigurdstorve/OpenBCSim) ultrasound imaging [simulator](https://www.semanticscholar.org/paper/Fast-Simulation-of-Dynamic-Ultrasound-Images-Using-Storve-Torp/f1a4545c13ce98d054ad17a77b0a62fad084c20d) to apply the [Spatial Impulse Response algorithm](https://field-ii.dk/documents/jaj_ieee_symp_1997.pdf) in CUDA and C++.
* Implemented a Python API with [pybind11](https://pybind11.readthedocs.io/en/stable/intro.html) and [ATen](https://github.com/pytorch/pytorch/tree/master/aten) to manage GPU memory.
* Configured [CMake](https://cmake.org/) to use clang/lld on Windows for faster builds.

PROJECTS **Solar Monitoring Project**(Ongoing)

( [*https://github.com/santoso-solar-monitoring-project/main-page*](https://github.com/santoso-solar-monitoring-project/main-page) )

* Built a [dashboard](https://santoso-solar-monitoring-project.github.io/main-page/?selectedKind=Welcome&selectedStory=to%20Storybook&full=0&addons=1&stories=1&panelRight=0&addonPanel=storybook%2Factions%2Factions-panel) application to visualize solar panel performance for a UT research lab.
* Written exclusively with [React Hooks](https://reactjs.org/docs/hooks-intro.html) to learn the new API.
* Designed a new pattern for type-safe, deeply-nested, inheritable default function arguments using [Immutable.js](https://immutable-js.github.io/immutable-js/) and [TypeScript generics](https://www.typescriptlang.org/docs/handbook/generics.html).

**videomag**(Oct 2017 – Dec 2017)

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

* Built a [video filtering app](https://spenceryue.me/videomag/) implementing the [Eulerian Video Magnification](http://people.csail.mit.edu/mrub/evm/) algorithm to magnify small changes from user’s web camera.
* Implemented the [Laplacian Pyramid](http://sepwww.stanford.edu/data/media/public/sep/morgan/texturematch/paper_html/node3.html) in C and compiled to [WebAssembly](https://webassembly.org/) to run in the browser with [emscripten](https://emscripten.org/).
* Modified the original color filtering algorithm to run in real-time using a windowed DTFT.

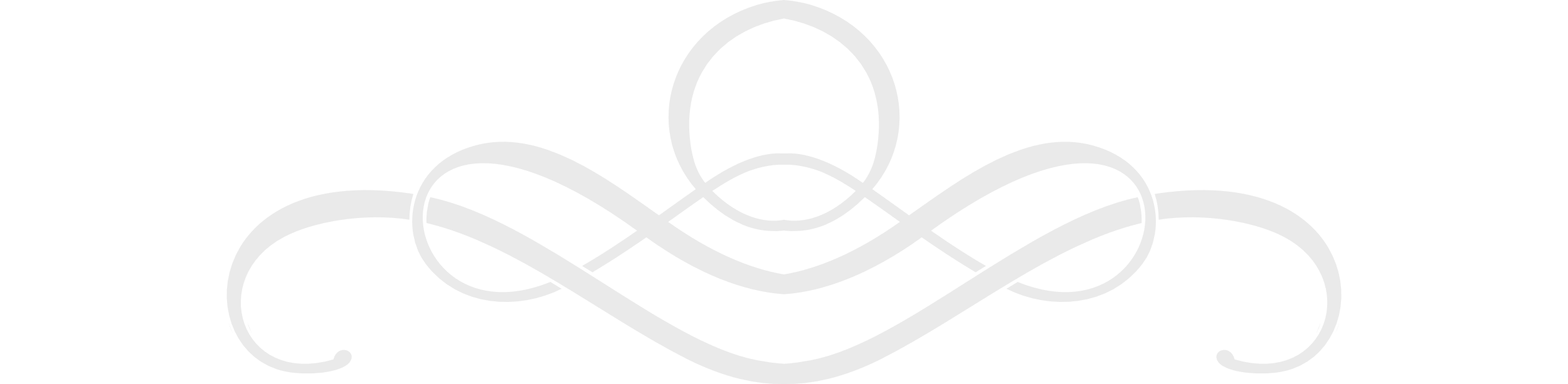
**StudyParty**(Mar 2017 – May 2017)

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

* Built a [location sharing app](http://study-party-ut.herokuapp.com) for two popular study locations at UT with indoor 3D floor plans.
* Implemented 3D models using SVGs, CSS transforms, and [Sass](https://sass-lang.com/) preprocessing.

COURSES[Operating Systems](http://www.ece.utexas.edu/undergraduate/courses/ee-461s) | [Algorithms](http://www.ece.utexas.edu/undergraduate/courses/360c) | [Data Science Principles](http://www.ece.utexas.edu/undergraduate/courses/ee-461p) | [Software Design Lab](http://www.ece.utexas.edu/undergraduate/courses/461l) [Complex Analysis (Graduate)](https://web.ma.utexas.edu/academics/graduate/prelims/exam_syllabi/Analysis.php) | [Real Analysis (Graduate)](https://web.ma.utexas.edu/academics/graduate/prelims/exam_syllabi/Analysis.php) | [Topology I](https://web.ma.utexas.edu/academics/courses/descriptions/M367K.php) | [Algebra I](https://web.ma.utexas.edu/academics/courses/descriptions/M373K.php)

AWARDS Silver Medal (92th percentile) in HackerRank [Week of Code 36](https://www.hackerrank.com/contests/w36/leaderboard/92) (2018)

 Silver Medal (90th percentile) in HackerRank [HourRank 25](https://www.hackerrank.com/contests/hourrank-25/leaderboard/30) (2018)