

## Education

### Vanderbilt University

**Intended graduation:** Dec. 2020

B.S. Computer Science, Mathematics, Minor in Scientific Computing

**GPA:** 3.70 / 4.00

**Relevant Coursework:** Data Structures, Computer Graphics, Discrete Structures, Web Development, Operating Systems, Nonlinear Optimization, Mathematical Data Science, Cloud Computing

**Technical Skills:** C++ (3 years), Python, C#, Unity, JavaScript, HTML & CSS, React, React Native

## Experience

### Teaching Assistant / Vanderbilt University School of Engineering

**Jan. 2019 – Present**

- Worked as TA for Discrete Structures, Operating Systems and currently for VR for Interdisciplinary Apps.
- Partnered with students on individual and small group basis to help with learning & assignment questions.

### Undergraduate Researcher / Vanderbilt University School of Engineering

**Jun. 2019 – Present**

- Researched at Vanderbilt LiVE Lab on AR & VR studies.
- Developed Unity applications to assess human perception in AR through Microsoft HoloLens.
- Currently working towards releasing a VR program to process and display stereoscopic images to public.

### Software Engineer / Eddify Co.

**Jul. – Aug. 2020**

- Worked as fulltime SWE at Eddify Co., a young startup, on its mobile application named Airsip.
- Pushed the app to its MVP release with the technical team.

## Projects

### CLI for Image Processing / C and C++ based command line interface

**Jan. – May 2019**

- Personal project. An OpenGL based image processing CLI built from scratch. Its functionalities include:
  - Reading, parsing and displaying TIFF binary files.
  - Manipulating images through discrete convolution filters.
  - Drawing geometric shapes on black canvas and changing their 3D transformations.
  - Rendering ray-traced images of 3D geometric shapes with different color & texture properties.
- GitHub repository made private due to Vanderbilt Honor Code Policy.

### NaturalScene & NarrowingWalls / Unity C# projects for Microsoft HoloLens

**Jun. – Nov. 2019**

- Two separate personal projects for assessing human perception abilities in AR.
- Both projects implement a full set of experimental protocol, consist of virtual objects that change behavior on voice commands, interactive buttons and floating text UI to indicate data or status.
- Both projects were supplied to the University of Utah Department of Psychology for testing and are available on GitHub at [github.com/VanderbiltLIVELab](https://github.com/VanderbiltLIVELab).
- [Paper](#) was submitted to IEEE VR 2020 conference and published on IEEE Xplore.

### Digital Cultural Heritage / Python & Unity project for Oculus VR

**Jan. 2020 – Present**

- Ongoing personal research project aimed to raise public awareness and aid researches on historic stereoscopic images primarily made in mid-19<sup>th</sup> and 20<sup>th</sup> centuries.
- Convert stereoscopic images to VR-compatible Unity scenes with trained faster R-CNN model.
- An Oculus Store / Steam VR version of this project is due for public release in the near future.

### Airsip / React Native application for iOS & Android

**Jul. – Aug. 2020**

- A forum app aimed to provide first-gen low-income students valuable info on college environments.
- Users are allowed to ask questions in text and receive answers in the form of short videos.
- Worked on user-side input validations, UI adjustments and code refactoring with better libraries.