

# Grady Wright

## Computer Engineer

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## Education

### University of Kansas

Bachelor of Science

Major: Computer Engineering

📅 May 2020

GPA: 3.95

## Experience

### Software Engineering Intern

Garmin Ltd

📅 5/2019 - 8/2019

- Create large scale automated UI testing framework
- Write Python to implement automated writing and executing of UI tests
- Implement features and fix bugs for Garmin chart plotters using C
- Work with image comparison algorithms to implement UI test validation

### Undergraduate Research Assistant

The University of Kansas

📅 1/2019 - 6/2019

- Assist in development of real-time raytracing simulation of communication networks
- Develop CUDA C++ for simulation of raytracing
- Write C++ for visualization of simulation using OpenGL

### Network Student Architect

The University of Kansas

📅 4/2018 - 5/2019

- Create and update documentation centered around whole network overhaul
- Write C# and Python for automatic generation of network documentation
- Management of Aruba and Cisco switching/routing configuration

## Involvement

### Tau Beta Pi

#### Engineering Honor Society

- Active member through volunteering, tutoring, and test preparation

### Eta Kappa Nu

#### IEEE Honor Society

- Active member through volunteering and coursework assistance

## Skills

- Proficient with Python, C++, C#, C, HTML/CSS/JS, MATLAB
- Proficient using OpenGL and CUDA
- Experience with ray-marching and signed distance fields
- Extensive experience with automated UI and regression testing
- 3D modeling experience using AutoDesk Maya 2018, Blender, AutoDesk Inventor 2018

## Honors and Awards

### First Place HackKU 2020

#### The University of Kansas

- 1st place in the FinTech track of KU's annual hackathon for development of peer-to-peer money transfer system

### Undergraduate Achievement Award

#### Eta Kappa Nu

- Awarded to top students in EECS 221 Electromagnetics

## Projects

### Twitch Overlay

#### Computer Graphics

- OpenGL rendered mesh particle system that updates with information gathered from the Twitch API
- Communicates with Twitch API using HTTP/Websocket protocols written with Winsock
- Supports separate build for ray-marched SDFs allowing for soft-shadows and reflections

### Fluid Simulation

#### Computer Graphics

- SPH fluid simulation built entirely in OpenGL
- Utilizes OpenGL compute shaders to apply particle physics and update render position
- Optimization is done using spatial hashing on particle positions

### Mooxter

#### HackKU 2020

- Peer-to-peer payment transfer system to utilizing everyday applications, such as Discord, Slack, Twitter
- Allows for XRP to be sent utilizing the Xpring API
- Utilizes Kubernetes to easily add interfaces and scale