

Will Kuglen

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Portfolio: wkuglen.com

- Education** **The University of Texas at Austin** May 2019
B.S. in Computer Science (pursuing)
B.F.A. in Design (pursuing)
GPA: 3.7/4.0
- Skills** **Computer Science**
- Experience in: Java, Git, C++, C, Arduino, Basic Circuitry, HTML, CSS
 - Familiar with: Swift, Android, Python, x86 Assembly, C#, Unity 3D, Processing
 - Concepts: Algorithms, Data Structures, Computer Architecture and Operating Systems, OOP
- Design**
- Experience in: Illustrator, Photoshop, Rhino, 3DS Max
 - Interested in: Industrial Design, Product Design, Typography, UI/UX
- Experience** **Designer and Collaborator at IBM Design, Austin, TX** August 2017 – December 2017
- Actively practiced IBM's design thinking methods for human-centered design
 - Investigated and defined the problem space in the industrial washing machine industry
 - Designed balanced business and user oriented solutions for the industrial washing machine industry, saving time and thousands of dollars in machine maintenance
- Intern at Epic Software Group, Inc., The Woodlands, TX** June 2017 – August 2017
- Constructed a browser-based interactive oil rig in Unity 3D with WebGL
 - Programmed a rotational 3D model viewer in Unity 3D and C#
 - Optimized and reduced polygons in 3D models using 3DS Max
 - Explored photogrammetry (3D models created from photographs) and designed an optimized workflow for creating the models quickly and accurately
 - Developed a website for locating/viewing photogrammetry models of public statues using the Sketchfab and Google Maps APIs
- Intern at Junichiro Kono Laboratory at Rice University, Houston, TX** June 2014 – August 2014
- Assisted in researching graphene and its properties through optical techniques
 - Learned about complex physics and math concepts, such as basic quantum theory
 - Operated and helped maintain a chirped-pulse amplification laser and a Fourier transform infrared spectroscopy machine to analyze graphene
 - Mentored high school students to inspire them to pursue research and careers in STEM
- Projects** **Whim, a terminal-based text editor**
- Programmed in C with curses/ncurses with the ability to create, read, and edit files
 - Allows for appending, replacing, and inserting text anywhere within a file with a moveable cursor
 - Reduces the number of random access reads from disk through caches and reduces writes by pushing changes to the disk after a set number of changes
- PintOS**
- Built an operating system, primarily in C, in conjunction with the operating systems course
 - Emphasized threads, managing user programs, virtual memory, and filesystems
- Heads-Up-Display**
- Designed and constructed a small information display that does not obstruct the field of view using Python and a Raspberry Pi Zero
- Eye Control Computers**
- Used basic computer vision concepts, OpenCV, and JavaCV to create a program that was able to detect faces and eyes with the intention of tracking eye movement
 - Intended to allow people who lack fine motor skills to use the computer hands-free.
- Activities** **Mobile App Development (MAD)** 2015 – Present
- UT Longhorn Entrepreneurship Agency Freshman Founders** 2015 – 2016
- Eagle Scout in Boy Scouts** 2005 – 2015