

# Gabriel Comer

Graduating May 2019

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## EDUCATION

### The University of Texas at Arlington — *Computer Science*

August 2015 - May 2019

GPA: 3.61/4.0

## PROJECTS

### JEN: UR5 Jenga Playing Robot

With a team of four other students, I am developing a Jenga-playing program that utilizes a UR5 Robot Arm, an Intel RealSense 3D camera, and OpenCV. Our work started in August and will be finished in May. I have been working with OpenCV to detect faces of Jenga blocks and discern their location. This project has taught me to learn from the experience of my teammates, and understand new technologies through shared effort.

### Python Wireframe Renderer

I developed a Python program that renders wireframe models in parallel and perspective projection. I learned how to use fundamental linear transformations, Euler rotations, Cohen-Sutherland line-clipping, and Bézier curves and surfaces. After the completion of this project, I used the skills I learned to develop graphics demonstrations on my website.

### SuperChat: Peer to Peer Chat Room

Along with two classmates, I developed a linux command line chat interface. The program used peer to peer networking through OpenSplice, and ncurses for the GUI. I learned how to quickly understand and use unfamiliar technologies, and the benefits of pair programming.

## EXPERIENCE

### Apartment and Residence Life, UT Arlington — *Office Assistant*

January 2016 - Present

I was a member of a tight-knit team of students and professionals working to build community within Lipscomb Hall. I performed detail-oriented office tasks, helped residents resolve conflicts, and empathized with their concerns.

### Half Price Books, Arlington — *Bookseller*

August 2017 - November 2017

I assisted customers in finding their books, providing them with a fast and efficient shopping experience, and sorted and shelved a constantly growing inventory. I had to be flexible, as I worked this position while working as an Office Assistant, and attending classes full time.

### Radwell International, Arlington — *Small Parts Inventory*

June 2016 - August 2016

I inventoried electronic components used in the manufacture and repair of boards for manufacturing equipment, performing detail-oriented work quickly, efficiently, and independently.

## LANGUAGES

Python, Java, C++, C#, C,  
Perl, Javascript, HTML

## SKILLS

Operating Systems: Windows,  
Linux (Ubuntu, Debian,  
Chrome OS)

Development Environments:  
Linux command line, Visual  
Studio, MATLAB, Atom.io

## COURSEWORK

**Compilers** - Built compiler  
from the ground up, lexical  
analysis, semantic analysis,  
intermediate code generation

**Computer Vision** -  
Thresholding, blurring, canny  
edge detection, template  
matching, hough transforms,  
MATLAB, OpenCV

**Machine Learning** - Linear  
regression, k-means,  
k-nearest neighbors, decision  
trees, Neural Networks

**Object-Oriented  
Programming** - C++, UML,  
Scrum Agile development

**Theoretical Concepts of  
Computer Science** -  
Mathematical proofs, graph  
theory, theoretical bases for  
computing

