

# Joseph Conwell

Software Developer

## Personal Info

### Address

302 Wilson Avenue  
Blacksburg, VA, 24060

### Phone

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### E-mail

jmconwell54@gmail.com

### Date of birth

1995-04-25

## Programming Languages (Proficient)

LUA

Python

Java

## Programming Languages (Familiar)

C++

Haskell

## Additional Frameworks and Languages

HTML/CSS

Love2D

Git

## Software

MS Office Suite

Adobe Creative Suite

## Hard Skills

Programming Logic

Data Structures

Self-motivated and open-minded computer science and philosophy student passionate about hands-on learning via various educational projects (most recently, self-taught functional programming), accustomed to managing multiple projects and working to a schedule, yet open to adapting to the needs of any given project or workspace.

## Education

2020

### Virginia Polytechnic Institute and State University

- BS in Computational Modeling and Data Analytics
- BS in Philosophy
- Minor in Computer Science

2013

### Archbishop John Carroll High School

## Projects

### RSA Implementation in LUA

[github.com/jmc529/RSA](https://github.com/jmc529/RSA)

This project implements the RSA algorithm, one of the first public-key cryptosystems. The program generates pseudo-random private and public keys, within the limits of an integer 'n' of  $2^{32}$ , and encrypts and decrypts numerical messages.

### Space Invaders in Love2D

[github.com/jmc529/spaceinvaders](https://github.com/jmc529/spaceinvaders)

This project implements the retro game Space Invaders in Love2D. At first, the project engaged an object-oriented programming paradigm, but as the project progressed the paradigm proved too rigid to accommodate the game. After some research, I decided the project would be better served by the Entity-Component-System (ECS), which creates entities dynamically and modularly. I am now rewriting the program with a functional programming mindset utilizing ECS.

## Volunteer Work

2015 -

### AM Director

2016

*Educational Media Company at Virginia Tech, WUVT*

#### Responsibilities

- Mentor and assist new DJs
- Schedule and monitor new DJs' shows

#### Achievements

- Implemented new practices still in use such as a shadowing program for new DJs and an online guidebook ([wuvt.vt.edu/am-guide](http://wuvt.vt.edu/am-guide))

2014 -

### Traffic Director

2015

*Educational Media Company at Virginia Tech, WUVT*

#### Responsibilities

- Organize a team to create automated radio shows
- Design new promotional content with the sales department

#### Achievements

- Cultivated a comfortable and meaningful work environment for my team by encouraging teamwork and hosting group outings