

# Joseph Cantrell

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<https://josephcantrell.org> | <https://github.com/josephcantrell14>

## Work Experience

### Software Engineer

Atlanta, Georgia

#### Verizon Connect

January 2019 – July 2020

- Delivered screens for the Hum Android Google Play application using Java, Kotlin, and MVVM structure. Transcribed InVision UI screen mockups to Android Studio XML and code. Wrote JUnit unit tests for Hum's network call responses.
- Coauthored two patent applications with the Verizon legal team and received compensation for the innovations.

### Software Engineer Intern

Atlanta, Georgia

#### Verizon Connect

June 2019 – August 2019

- Created a NodeJS OracleDB and Cassandra database API with Swagger documentation embedded in a NodeJS website.

### Database Engineer

Atlanta, Georgia

#### Secuur.Co

December 2017 – February 2018

- Rewrote a Java JDBC database using a MongoDB NodeJS server. The front end utilizes Angular, the Ionic framework, and RxJS, and connects to the database server through a NodeJS server. User authentication includes bcrypt password hashing and salting. User sessions use ExpressJS, Mongoose, and cookies. Deployed to a new Amazon Web Services EC-2 instance.

### Technical Assistant

Atlanta, Georgia

#### Georgia Tech College of Computing Help Desk

September 2014 – August 2017

- Assisted customers in resolving technical issues involving College servers and general computer troubleshooting.
- Rewrote the Teaching Assistant application website (PHP, JavaScript, MySQLi).
- Created a web interface for modifying the employee MySQL database (PHP, JavaScript, MySQLi).
- Created an online portal for accessing all College of Computing class websites (PHP, JavaScript, MySQLi).

## Education

### Georgia Institute of Technology

Atlanta, Georgia

Bachelor of Science: Computer Science

June 2014 – December 2018

## Skills & Interests

### Skills and Programming Languages

Python, Java, Kotlin, C#, C, Assembly, MATLAB, PHP, JavaScript, HTML, CSS, XML, NodeJS, NativeScript, ReactJS, Angular, Ionic, RxJS, jQuery, MySQLi, Cassandra, OracleDB, MongoDB, Swagger, Android, Gradle, GitHub, Maven, Drupal, Plesk, AWS, Docker, MediaWiki, Apache, Linux, Adobe Animate, Unity, Godot, Mutex multithreading, OpenCV, MVC, MVVM, Agile

### Data Structures and Algorithms

Programmed A\* heuristic searches, neural network, AVL tree, Prim's MST, hash table, quicksort, state machines, malloc

### Game Design

Created two Gameboy Advance games in C and recreated the Atari game MULE in JavaFX with a five student Agile team.

## Projects

**Personal Website** – *Technologies:* PHP, JavaScript, HTML, CSS ; *Platform:* Browser

Maintain and expand a personal website at the domain <https://josephcantrell.org> with an Ubuntu 17.04 Apache server.

**Prophet Launcher** – *Technologies:* GDScript, MySQLi ; *Platforms:* Android, Windows, Linux

Published a paid 2D platformer game to itch.io using the open source Godot engine and the Python-like GDScript. Includes a MySQLi database for leaderboards. <https://josephcantrell.org/games/prophet-launcher.php>

**Untrumpable** - *Technologies:* GDScript ; *Platforms:* Android, Windows, Linux, HTML5

Published a free 2D game using the Godot game engine. Untrumpable is downloadable via the Google Play Store and itch.io and also playable in a browser. <https://play.google.com/store/apps/details?id=com.joseph.untrumpable>

**Machine Learning** – *Technologies:* Weka, ABAGAIL (Java), BURLAP (Java)

Classified and filtered data sets using machine learning algorithms. Analyzed each algorithm's performance.

**Active Learning** – *Technologies:* JavaScript, HTML, CSS, ReactJS, NodeJS, MongoDB ; *Platform:* Browser

My Agile-oriented team of five Georgia Tech students created a generalized instructional web app with which students complete quizzes. ReactJS serves dynamic web content, ChartJS displays statistics, and MongoDB stores application data.