

# Brian David Kane

BDKCreate.com

[BrianDavidKane@gmail.com](mailto:BrianDavidKane@gmail.com)

217-553-0556

## Project List

<b>Published Projects</b> .....	<b>3</b>
Hexagon App .....	3
Math Quizer and Math Quizer Ads .....	3
Drug Blaster!.....	4
History 205 Exam .....	4
Christmas Blaster!.....	5
Flying Whi!.....	5
<b>Client Projects</b> .....	<b>5</b>
OFAC Screening API .....	5
SIMKA Interactive Storyboard.....	6
Pangaea Voxel Demo .....	6
Confidential Freelance Project .....	6
BreLaw Database App .....	7
<b>Published Prototypes and Demos</b> .....	<b>7</b>
Fire Maze Demo.....	7
RPG001 Demo.....	8
ISS Worst Case .....	8
<b>Tools and Utilities</b> .....	<b>8</b>
Accessibility: Text Resizer .....	8
BDK Char Loco .....	9
BDK Char Creation .....	9
Gravity.....	9
Scene Management .....	9
HGPN Modeling .....	9
Java Auto SQL and Auto PList Writer.....	9
Animation Preview .....	10
File Parse and Convert to CSV .....	10
<b>Unpublished Projects</b> .....	<b>10</b>
Explo! .....	10
Wabbit Wampage.....	11
Mad Libs .....	11
Truthian Dictionary.....	11
iOS App.....	11
Java App.....	12
Asteroid Destroyer.....	12
Scratch App.....	12
Java App.....	12
Mars Colonialization .....	13
Circle Game .....	13

## Brian David Kane

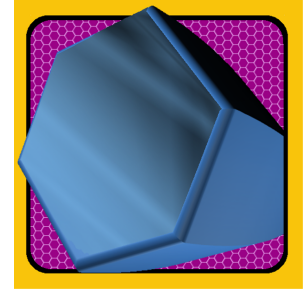
Spectrophotometer UI .....	13
Unpublished Prototypes and Demos .....	14
Mandarin Learning App .....	14
Audio Adventure Prototype .....	14
Chaos Isle.....	14

## Brian David Kane

### Published Projects

#### Hexagon App

An educational game to learn your shapes and colors. Primarily aimed at 2-8 year olds. 2D art by Megan Kane from MeganKane.com and adorable voice acting by my 4 year old niece. Said niece also named the app. My name for the Java version was the very original *Circle Game*. My then 3 year old niece however called it the hexagon game.



Apple: <https://itunes.apple.com/us/app/hexagonapp/id592879334>

Published January 2013

Updated January 2015

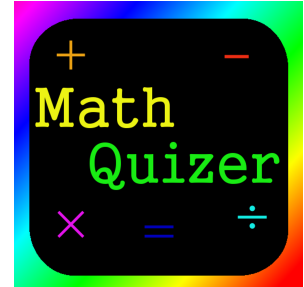
#### Role/Highlights:

- Developed entire app with artist and voice actor
- Persists data with core data
- Implemented UI with Storyboards

**Technologies/Tools:** Xcode, Objective C, Storyboards, Auto layout, Core Graphics, Core Audio, Core Data, Audacity, Gimp, Xcode Versioning

#### Math Quizer and Math Quizer Ads

Educational apps to quiz basic math skills of addition, subtraction, multiplication and division. Can select the number of digits for each number to quiz with.



Apple Premium: <https://itunes.apple.com/us/app/math-quizer/id655699184>

Apple Ads: <https://itunes.apple.com/us/app/math-quizer-ads/id655747209>

Published June 2013

Updated January 2015

#### Role/Highlights:

- Developed entire app solo artist and voice actor
- Persists data with core data
- Implemented UI with Storyboards

**Technologies/Tools:** Xcode, Objective C, Storyboards, Auto layout, Core Graphics, Core Audio, Core Data, Audacity, Gimp, Xcode Versioning

## Brian David Kane

### Drug Blaster!

Fun time wasting app where you tap drugs away from you. 3D cross platform app built in Unity3D. Published just 90 days after I started to learn Unity3D.

Apple: [https://itunes.apple.com/us/app/drug-blaster/id1211860958](https://itunes.apple.com/us/app/drug-blast/id1211860958)

Google:

<https://play.google.com/store/apps/details?id=bdk.BDKCreate.DrugBlaster>

Published: April 2017



### Role/Highlights:

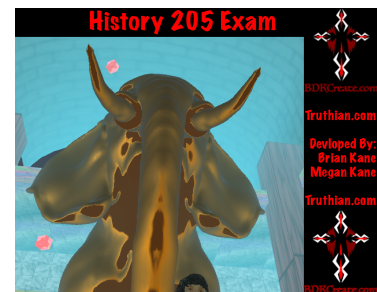
- Developed entire app solo
- Utilized Third Party Libraries (assets)

**Technologies/Tools:** Unity3D, MonoDevelop, C#, Playmaker, Inventory Pro, Easy Save 2, Unity Remote App, XCode, Unity Scene and Cameras, Adobe Premier, Gimp, Quicktime, Audacity

### History 205 Exam

Initially created at [Extra Life Playcrafting Game Jam](#) in 48 hours. Demo002 is that version. Demo 3 was refined over the next week for the live event. History 205 Exam is a 3D third person collectathon in a gorgeous 416,025 sq. ft. marble museum.

Your history exam will begin as soon as your time hopper is fully charged. Travel through time in a museum to tag specific objects to complete your exam.



Made in partnership with Megan Kane of [Truthian Publishing](#)

Itch: <https://bdkcreate.itch.io/history-205-exam>

Published May 2017

### Role/Highlights:

- Developed entire app with artist and voice actor
- Deigned and built Museum inspired by real life place
- Demoed at Charity event and collected user feedback
- Composed and created the background music

**Technologies/Tools:** Unity3D, MonoDevelop, C#, Playmaker, Inventory Pro, Easy Save 2, Gimp, Quicktime, Audacity, Garage Band

## Brian David Kane

### Christmas Blaster!

A Christmas themed re-skinning of Drug Blaster! IT was also re-structured and formatted to work for a landscape WebGL build. Main purpose was to learn the build and publication process of launching on Kongregate.com.



Kongregate:

<https://www.kongregate.com/games/BDKCreate/christmas-blaster>

Published December 2017

#### **Role/Highlights:**

- Reskinned previous app
- Built for WebGL

**Technologies/Tools:** Unity3D, MonoDevelop, C#, Playmaker, Inventory Pro, Easy Save 2, Gimp, Knongregate.com

### Flying Whi!

Initially created for the Extra Credits Game Jam 2018. It's a short fun game, set up using Unity's online matchmaking service (only for the first 30 days) and allows for hosted multiplayer. Download to play by yourself or with up to 3 friends!



*Itch:* <https://truthian.itch.io/flying-whi>

Made in partnership with Megan Kane of [Truthian Publishing](#)

#### **Role/Highlights:**

- Developed entire app with artist (Megan Kane)
- Launched on Unity Multiplayer for 30 days

**Technologies/Tools:** Unity3D, VS, C#, Unity Multiplayer

## Client Projects

### OFAC Screening API

An automated AI driven legal compliance tool

**Client:** Engineering Legal

#### **Role/Highlights:**

- Create Prototype in Unity

## Brian David Kane

- Adapted REST API

**Technologies/Tools:** Unity3D, VS, C#, Postman

### [SIMKA Interactive Storyboard](#)

The Skipping 2 generations ahead in Educational Technology

**Client:** Olivia Freeman of Society of Cognitive Engineers

#### **Role/Highlights:**

- Created Interactive Storyboard
- Created Geography Quiz



**Technologies/Tools:** Unity3D, VS, C#

### [Pangaea Voxel Demo](#)

The future of graphics

**Client:** Pangaea Innovations

*Video Link:*

Built March 2019



**Pangaea  
Innovations**

#### **Role/Highlights:**

- Created Playable demo to highlight usefulness of voxels

**Technologies/Tools:** Unity3D, VS, C#, Gimp,

### [Confidential Freelance Project](#)

Demo levels for a Untiy3D game. Fire maze demo shows certain similar concepts. See feedback from client:

*"He did a great job, deliver the project on the time and he has a good communication. I recommend everyone to hire him. He keeps you know about everything he did and sends a daily report for what he did."*

#### **Role/Highlights:**

- Took client desires and shaped into design requirements
- Reported daily on progress
- Created and refined the mechanics
- Designed 3 variations of a level
- Incorporated AI Enemies
- Delivered project on time with documentation

## Brian David Kane

**Technologies/Tools:** Unity3D, MonoDevelop, C#, Gimp, Quicktime, Audacity

### BreLaw Database App

Database driven app for a collections law firm to track their cases. Project was major component of Database Class in college. By the end two of us rose into unofficial leadership positions. I took charge of production while Jamie took charge of documentation and the client presentation. There were twelve of use working on the project.

**Client:** BRE Law at <https://brelaw.com/>

**Project Presentation:** <https://www.youtube.com/watch?v=QeraeO3ZA0g>

### Role/Highlights:

- Rose to become unofficial Co-Leader of Production
- Won awards at Ball State IS Competition
  - 1<sup>st</sup> Place for Project
  - 1<sup>st</sup> Place for Presentation
  - See Project Presentation
- Built search features for app
- Created UI Design standards
- Integrated others work into the master copy

**Technologies/Tools:** MS Access, PowerPoint, SQL

### Published Prototypes and Demos

#### Fire Maze Demo

Find your way through this maze without dying from the fiery attacks. A Unity3D demo level for a 3D maze game. Demonstrates Unity Particle effects and automated transform scripts.

*Itch:* <https://bdkcreate.itch.io/fire-maze-demo>

Built May 2017



### Role/Highlights:

- Created custom Playmaker scripts for automated movement of objects

**Technologies/Tools:** Unity3D, MonoDevelop, C#, Playmaker, Gimp, Quicktime, Audacity

## Brian David Kane

### RPG001 Demo

A demo of a custom built character controller and integration of Inventory Pro. Includes basic seek and attack AI enemies.

Link:

<https://www.bdkcreate.com/rpg001/2017/1/20/demo-1>

Built January 2017



### Role/Highlights:

- Created character controller integrating C# Scripts, Playmaker, and Animation Controller
- Designed health and attack system

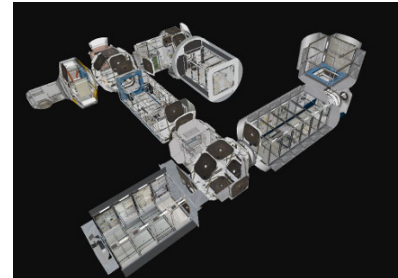
**Technologies/Tools:** Unity3D, MonoDevelop, C#, Playmaker, Inventory Pro, Gimp, Quicktime, Audacity

### ISS Worst Case

VR Experience in the International Space Station (ISS) using NASA's interior model. VR built around the one button Google Cardboard platform.

*Apple Test Flight:* Submit request for free invite (this.date = 01/03/18)

<https://www.bdkcreate.com/prototypes/2018/1/2/vr-iss-worst-case>



ISS Internal by NASA

## Tools and Utilities

Accessibility: Text Resizer

**Published Tool:** One-Click : Four Step : Quick Solution

Do you need/want to allow your players to resize the text of your game for their own comfort? It's a great accessibility feature that many with and without visual impairments will appreciate. After noticing the industry wide text issues and the growing importance of accessibility features, I built this tool. It's a one-click four step light weight solution to add in this key accessibility feature. It'll take you less than 15 minutes and your players (and marketing) will love you for it.

**Unity Asset Store:** <https://assetstore.unity.com/packages/tools/gui/accessibility-text-resizing-111068>

**Technologies/Tools:** Unity3D, C#, VS



## Brian David Kane

### BDK Char Loco

**Internal Tool:** Modular Character Controller

**Technologies/Tools:** Unity3D, C#, VS

### BDK Char Creation

**Internal Tool:** Character creation tool for defining NPCs and Player Characters.

**Technologies/Tools:** Unity3D, C#, VS

### Gravity

**Internal Tool:** Different gravity modes beyond down Y

- Radial Gravity
- Directional Gravity Any Vector
- Gravity Fields

**Technologies/Tools:** Unity3D, C#, VS

### Scene Management

**Internal Tool:** Switching Scenes and providing structure for apps

- Scene Chaining
- Background Management scene
- Asynchronous Scene Loading for background loading

**Technologies/Tools:** Unity3D, C#, VS

### HGNP Modeling

My Major in College was Biochemistry and as such I conducted an original research project. I studied Hollow Gold Nanoparticles (HGNP). Particularly their thermal and biological stability for use in cancer treatments. I built these collections of methods to aid in my evaluation of statistics and projections based on my own research and from other scientific literature.

#### **Role/Highlight:**

- Developed everything
- Built tool for specific scientific research need

**Technologies/Tools:** Java, BlueJay

### Java Auto SQL and Auto PList Writer

While building my Mandarin Learning app I found a need to write PLists and SQL. These methods and classes enabled me to do just that.

## Brian David Kane

### **Role/Highlight:**

- Developed everything
- Built tool for specific development need
- Read in CSV, Wrote out PList and SQL lines

**Technologies/Tools:** Java, BlueJay, Text Edit, Excel

### Animation Preview

Built to evaluate the speed needed for animations in my app Wabbit Wampage. This was built before Apple released Sprite Kit so my animations were being done using UIImage.

### **Role/Highlight:**

- Developed everything
- Built tool for specific development need
- Utilized File manger to chose files for Animation

**Technologies/Tools:** Java, BlueJay, Java Swing

### File Parse and Convert to CSV

Summer of 2017, my sister complained of needing to change a spreadsheet file with unique separators into a csv file, she was doing it by hand. I had such methods for parsing left over from my auto SQL and PList writers. I sent about 2 hours making the tool and creating a tutorial document for here to use.

### **Role/Highlight:**

- Developed everything
- Built tool for specific business need

**Technologies/Tools:** Java, BlueJay, Word (for tutorial)

## Unpublished Projects

### Explo!

A fun little app that plays explosions when and where you touch the screen. With either chosen color or random color generated. Was submitted right after Apple changed their guidelines for level of complexity an app must meet to be approved. Was rejected and I went on to work on Wabbit Wampage.



**Submitted:** July 2013

### **Role/Highlights:**

- Developed entire app with an artist creating the icon

## Brian David Kane

- Persists data with core data – save color preferences
- Implemented UI with Storyboards
- Programmatically filtered the greyscale exploding images

**Technologies/Tools:** Xcode, Objective C, Storyboards, Core Graphics, Core Audio, Core Data, Audacity, Gimp, Xcode Versioning

### Wabbit Wampage

The rabbits are attacking an you must defend yourself. Tap on the rabbits and when you get enough coins you can use one of your special moves. Was built to 80% in the summer of 2013. I put on hold for school. At 2014 WWDC Apple announced new UI rules, Sprite Kit, and Swift.

#### **Role/Highlights:**

- Developed entire app with an artist
- Made Java app to test images for animations
- Connected to Game center for Achievement system

**Technologies/Tools:** Xcode, Objective C, Storyboards, Core Graphics, Core Audio, Core Data, Audacity, Gimp, Xcode Versioning, iAds, In-App-Purchasing, Game Center

### Mad Libs

A game to play 2 mad libs stories. Was my midterm project my Mobile App Development course. Built in Fall of 2012.

#### **Role/Highlight:**

- Developed entire app
- First iOS project completed

**Technologies/Tools:** Xcode, Objective C, Storyboards

### Truthian Dictionary

My sister and I have been, very slowly, creating a language. The apps below are to aid in that creation.

#### iOS App

An iOS Dictionary app with a focus on creating the word needed for a language to be full. Now having experience with relational database and SQLite on iOS specifically I used SQLite over my java approach to databasing.

#### **Role/Highlight:**

- Developed entire project
- Employed FMDB for SQLite access

## Brian David Kane

**Technologies/Tools:** Xcode, Swift, SQLite, FMDB, Storyboards, UIKit, Autolayout

### Java App

A two part app, Part one is the dictionary and part 2 is a writer for the vertically written runic language. This was before I learned to utilize databases. I attempted to create a relational database out of java classes. I got fairly close in a cringe worthy hardcoded way.

#### **Role/Highlight:**

- Developed entire project
- Data persistence through custom save files
- Remapped Keys to type custom Images
- Saved search files for quicker search times, part of the Java DB Monstracity
- Attempted to make a Relational Database from Java Classes, without knowing Relational databasing

**Technologies/Tools:** Java, Java Swing, BlueJay, NetBeans, MS Paint

### Asteroid Destroyer

#### Scratch App

My very first development project. Built in Scratch by MIT. Scratch is a drag and drop programming environment built to teach the fundamentals and allow you to very quickly see the immediate results of your actions. Built in 1<sup>st</sup> month of learning programming Spring 2010. I maxed out the capabilities of the program and got very frustrated with several of its limitations. Such as no programmatic instantiation of objects and the no data persistence.

#### **Role/Highlight:**

- Developed entire project
- First Development project ever
- Maxed out engines capabilities thus I had to learn to find efficiencies and cut back scope
- Data persistence through txt file read/write

**Technologies/Tools:** Scratch, MS Paint

### Java App

About 1 year after the Scratch version I was able to make a Java version that was much more robust. It could not only handle a lot more graphical use. It also had object initialization and data persistence.

#### **Role/Highlight:**

- Developed entire app

## Brian David Kane

- Learned Multithreading
- Learned to use Java Audio
- Learned to use Java Swing UI Elements
- Utilized input from Keyboard

**Technologies/Tools:** Java, BlueJay, NetBeans, Java Swing, Java Audio, Audacity, MS Paint

### Mars Colonialization

My sister's life goal is to go to Mars. That was the inspiration behind this app. It was a resource gathering app in real time. It was envisioned as a cross between an RTS and Civ. As a 2D game engine built from Java, with Java swing being the major UI elements utilized.

#### **Role/Highlight:**

- Developed entire app
- Engineered an auto pathing feature for units
- Utilized Java Menu elements
- Persisted Data with custom data save files
- Built 2D Custom game engine

**Technologies/Tools:** Java, Java Swing, BlueJay, NetBeans, Java Audio, Audacity, MS Paint

### Circle Game

This was the precursor to my first published app, HexagonApp. I built it in java for my then 3 year old niece, who renamed it the hexagon game as my name was far too boring.

#### **Role/Highlight:**

- Developed entire app
- Learned to utilize mouse input

**Technologies/Tools:** Java, Java Swing, BlueJay, NetBeans, Java Audio, Audacity, MS Paint

### Spectrophotometer UI

This was the GUI for a hardware project on the Raspberry Pi (RPi). As an unofficial capstone project of the Information Systems program. Unofficial as there was no official and this was an experimental class. The class was an entrepreneurial class where all 8 of us were given a RPi to create a product. I utilized a webcam built a spectrophotometer, measures the absorption of light by a sample. It is a common and fundamental scientific tool with far ranging uses. This is the Java app to run and see the results of the spectrophotometer. It worked passably well, but not well enough to be a competitive product.

#### **Role/Highlight:**

- Developed entire app
- Learned Linux command line

## Brian David Kane

- Delivered presentation in Business Schools entrepreneur Competition
- Conducted product research and feasibility studies

**Technologies/Tools:** Java, Java Swing, BlueJay, NetBeans, RPi with Linux

### Unpublished Prototypes and Demos

Apple app store only accepts fully finished and polished apps

#### Mandarin Learning App

In December of 2014 I decided I wanted to learn Chinese. As I started I was also learning Swift. I created this prototype. I ultimately decided I did not have the knowledge level of Mandarin for this to work and decided to shelve the project.



#### Role/Highlight:

- Developed entire app, art too
- First swift project
- First iOS project to utilize SQLite

**Technologies/Tools:** Xcode, Swift, Storyboards, SQLite, Auto Plist and SQL Writer, Core Audio, Core Graphics, Autolayout

#### Audio Adventure Prototype

After interviews with a company creating apps for the blind, I thought what games can the visually impaired play. The answer was an audio choose your own adventure game. I have completed about 80% of the prototype. Currently on hold while I go through the Udacity Nanodegree classes.

#### Role/Highlight:

- Developed all of current app (80% complete)
- Data persistence with SQLite with FMDB
- Deployed Vapor for server side Swift on an AWS EC2 instance

**Technologies/Tools:** Xcode, Swift, Storyboards, SQLite, FMDB, Core Graphics, Core Audio, Autolayout, Vapor, MySQL, AWS EC2

#### Chaos Isle

I am working on creating an open world RPG. Right now I have decided to focus on getting the mechanics working smoothly. As a game with bad mechanics is immediately rejected by players. Well in the development realm at least, marketing has a lot to do with overall success.

#### Role/Highlights:

- Integrating multiple third party assets/libraries

## Brian David Kane

- Refactored third party library to be utilized in concert with other third party assets
- Created Custom UI scripts, notable a Tab system for Unity UI
- Built Add-ons for Third Party Assets
- Creating BDK Tools see in tools section

**Technologies/Tools:** Unity3D, MonoDevelop, C#, Inventory Pro, Morph3D, Quest Pro, Rewired, Gimp, Quicktime, Audacity, Garage Band