DREW GRAHAM

415 N 40th St, Philadelphia PA 19104 | (407) 575-4086 | dmg9626@gmail.com | drewgrahamdev.com

I make the games I want to play

SKILLS

Programming Languages: C#, C++, Java, Javascript, Python, Scheme/Racket

Technologies: Unity, Git, Unix, Photoshop/Illustrator, Maya/Mudbox, NodeJS

General:

- Disaster management
- Breaking large problems into small, manageable tasks
- Visualizing complex systems in UML form
- Jumping headfirst into unfamiliar territory
- Embracing what I know (and acknowledging what I don't)

WORK

Bayada Home Health Care
Software Developer

Moorestown, NJ
*Fall 2016 -
Spring 2017*

- Familiarized self with full-stack development, from dev-ops to database
- Developed AngularJS web applications used by clients and employees
- Extended C#/.NET backend functionality via test-driven development
  - Regression testing in Fitnesse allowed us to verify that previous features continued to work as expected
- Created SQL stored procedures to integrate applications with the database
- Assessed viable protocols for integrating employee SSO (single-sign-on)
  - Consolidated numerous employee credentials (used for various enterprise services) into one Bayada account
  - This bolstered security by safeguarding credentials from data breaches suffered by those services

Acention
Unity Developer

Philadelphia, PA
*Fall 2017 -
Spring 2018*

- Wrote and maintained networking infrastructure used to connect players
- Spearheaded creation of company's newest game, Highway Heist
- Drafted and implemented player profile customization features
  - Players could distinguish their avatar with unlockable cosmetics
  - This provided an engaging progression system to supplement the core gameplay loop
- Ensured quality by testing builds thoroughly before releasing to players

Night Kitchen Interactive
Unity Developer

Philadelphia, PA
Fall 2018 -
Spring 2019

- Created interactive digital experiences for local art institutions, museums, and companies
    - o Developed UI and map functionality for Lost & Founders, a location-based AR app, to more effectively engage users with historical figures
    - o Created Xfinity AR app used to train Comcast technicians, leveraging mixed-reality interaction for more effective training results
- Documented iOS TestFlight build procedure to greatly expedite future builds for developers
- Rebuilt/maintained company website during DDOS attack
    - o Recovered MySQL database from old backups
    - o Quickly designed frontend to mimic behavior of site before attack
    - o Propped up quick-and-dirty webpage to replace old one within a few days

PROJECTS

Ikigai
Senior Design Project

Drexel University
Fall 2020 - Present

- Perspective-based 2D/3D puzzle game set in Japanese Ukiyo-e painting
- Delegated programming tasks based on design team's feature requests
- Trained design team to participate in proper Git workflow
    - o This expedited our development pace and mitigated version control issues
- Created robust Player / Actor system
    - o Seamlessly integrates complex features such as character swapping, perspective switching, and actor-specific UI updates
- Conducted frequent code reviews to ensure best practices were followed

Holy Tester
Class Project

Drexel University
Summer 2019

- A procedurally-generated roguelike dungeon crawler
- Designed and implemented dynamic, modular, and robust enemy AI system
    - o Enemy Tactic System granted enemies the ability to adapt behavior on the fly
    - o Careful design considerations led to extensive code reuse, reduced development time, and unique enemy behaviors
- Integrated enemies into procedural level generation procedure
    - o Configurable settings allowed designers to control which enemies could appear on a per-room basis
    - o This allowed each room to have a pseudo-random batch of enemies (within bounds set by designers)

It's Haunt Time!
Class Project

Drexel University
Spring 2019

- Mobile puzzle game where you play a ghost haunting a house
- Spearheaded development of modular interaction system used to implement game mechanics
  - o This enabled our developers to quickly implement set pieces conceived by designers
- Implemented intuitive, pick-up-and-play touch controls
- Ensured compatibility with a range of devices and operating systems through Android build pipeline

Surface Tension
Class Project

Drexel University
Spring 2018

- Puzzle-platforming game based on manipulating surfaces
- Drove development of systems controlling player/surface mechanics
- Led level development pipeline
  - o This empowered our designers, shortening time to produce a level from days to hours
  - o This resulted in over 20 playable levels created within 5 weeks

This Is Trump
Hackathon Game

YCP Hacks
Fall 2016 -
Spring 2017

- 2D side-scrolling parody game about Donald Trump running for president
- Created animated sprites for Trump and his enemies, the Bad Hombres and Biased Liberal Media
- Programmed player controls, enemy AI, game loop, etc. in C#
- Designed algorithm to control spawning, movement, etc. for enemy waves of increasing intensity

EDUCATION

Drexel University
College of Computing and Informatics – 3.10 GPA

Philadelphia, PA

Fall 2015 –
Summer 2020

- Major in Computer Science
- Concentration in Game Development and AI Programming
- Expected Graduation: June 2020

Relevant Coursework:

Computer Science

- Multivariate Calculus
- Linear Algebra
- Discrete Mathematics
- Machine Learning
- Artificial Intelligence
- Systems Architecture/Programming
- Software Design/Engineering

Game Development / Production

- Game Development Foundations
- Game Development Workshop
- Experimental Game Development
- Game AI
- Animation
- Computer Graphics Imagery

PERSONAL

Awards:
- Eagle Scout, 2015
- Drexel Office of Disability Resources Endorsed Note Taker, 2017

Hobbies:
- Skateboarding
- Cooking
- Gaming
- Skydiving
- Fishing
- DIY

Bucket List:
- Learn to kickflip
- Buy a house
- Go skydiving (higher)
- Develop an AI that becomes sentient and tries to kill me

Underrated Movie: Super Mario Bros.

Underrated Game: VA-11 HALL-A

Underrated Show: Nathan For You