DREW GRAHAM

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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 — ***Moorestown, NJ***

Software Developer — *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 — ***Philadelphia, PA***

Unity Developer — *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 — ***Philadelphia, PA***

Unity Developer — *Fall 2018 - Spring 2019*

- Created interactive digital experiences for local art institutions, museums, and companies
    - Developed UI and map functionality for Lost & Founders, a location-based AR app, to more effectively engage users with historical figures
    - 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
    - Recovered MySQL database from old backups
    - Quickly designed frontend to mimic behavior of site before attack
    - Propped up quick-and-dirty webpage to replace old one within a few days

PROJECTS

This Is Trump — ***YCP Hacks***

Hackathon Game — *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

Surface Tension — ***Drexel University***

Class Project — *Spring 2018*

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

It's Haunt Time! — ***Drexel University***

Class Project — *Spring 2019*

- Mobile puzzle game where you play a ghost haunting a house
- Spearheaded development of modular interaction system used to implement game mechanics
    - 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

Holy Tester **Drexel University**
Class Project *Summer 2019*

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

EDUCATION

Drexel University **Philadelphia, PA**
College of Computing and Informatics – 3.10 GPA *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